TWENTY-FIFTH
ANNUAL REPORT

EXTENSION SERVICE

UNIVERSITY OF MARYLAND

FOR THE YEAR 1939

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Cooperative Extension Work in Agriculture and Home Economics, Extension Service, University of Maryland, and the United States Department of Agriculture, Cooperating.

T. B. SYMONS, Director

(Distributed in furtherance of acts of Congress of May 8 and June 30, 1914)

LETTERS OF TRANSMITTAL

DR. H. C. BYRD,
President, University of Maryland:

I have the honor to present herewith the Twenty-Fifth Annual Report covering the work of the Extension Service of the University of Maryland, in cooperation with the U. S. Department of Agriculture, for the calendar year 1939, together with a financial report for the fiscal year ending June 30, 1939.

Respectfully submitted,

THOMAS B. SYMONS,
Director, Extension Service.

January 1, 1940.

TO HIS EXCELLENCY HERBERT R. O'CONOR,
Governor of Maryland:

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FOR THE YEAR 1939

By THOMAS B. SYMONS, Director

E. I. OSWALD and MISS VENIA M. KELLAR, Assistant Directors

INTRODUCTION

THE TWENTY-FIFTH year of organized, cooperative extension work was completed during the year 1939. In reporting some of the major developments for the year, there is a temptation to think also of the accomplishments and the developments during the quarter-century of service. Some mention will be made of the anniversary feature of 1939, but it can be stated here that it inspired an attitude of serious consideration of the problems which lie ahead in the light of the experience gained and progress made in the twenty-five years that have passed.

In general, it can be said that producers of most Maryland farm products fared as well as or a little better than last year. Growers of some of the truck crops realized smaller income from their efforts. The total farm value of farm products, together with the payments earned by participation in the conservation program, is nearly $2,000,000 greater.

People Use the Service

THE BROAD objective of extension work is to make life more attractive for the thousands of families that live on the land throughout the State and obtain the income on which their standard of living is based from agricultural pursuits. To accomplish that objective, a broad program involving many lines of work is carried forward, and it is the aim to help farm people

help themselves. Some idea as to the extent to which the many lines of work conducted by the Extension Service in Maryland during 1939 actually reached the people of the State may be gained from a few statements taken from a summary of the year's work.

Extension agents, men and women, made 25,428 visits to 11,323 different farms and homes for the purpose of advising on farm and home problems. They received 11,854 calls at their offices and 77,373 calls by telephone from persons desiring their assistance. In disseminating information, they wrote 78,237 individual letters, distributed 46,969 bulletins, broadcast or helped prepare 344 radio talks, and helped arrange educational exhibits at 335 events. A total of 113,564 persons attended 6,575 methods demonstrations and 7,668 attended 211 result demonstrations. Definite changes in practices as a result of the extension program were reported on 23,553 farms and in 9,930 homes. More than 12,000 boys and girls were enrolled in definite projects under trained 4-H club leaders.

Land Use Program Planning

AMONG THE most significant developments in extension work in Maryland during 1939 is the progress made in Land Use Program Planning. This work involved the efforts of practically all extension workers, including the men and women specialists, the county and home demonstration agents, and those who work with rural youth.

The foundation was laid for work in this line in previous years, but special attention was concentrated upon it at the beginning of this year. Instead of the usual conference of all extension workers, three regional conferences were held early in the year. In addition to extension workers, a number of leading men and women in the respective regions attended and participated in these conferences. Land use program planning was explored in all of its phases, and all lines of extension work were considered in relation to that program. In that way, the leaders throughout the State were enlisted in working out programs best adapted to their local and county conditions.

Agricultural land use planning in Maryland is progressing along six main fronts, although the activities touch on a wide variety of problems. The approaches include: Cooperation in

the development of programs and work plans for control and prevention of soil erosion in the newly-formed soil conservation districts; a farm forestry plan for Maryland; farm drainage; investigation pertaining to land classification, production and market price opportunities for fruits and vegetables in the Lower Eastern Shore area, and a survey of rural communities in Washington county; recommendations for improvement in the agricultural conservation program; and, development of intensive and unified agricultural land use in selected counties.

A State Agricultural Land Use Planning Committee was organized, consisting of Dr. Thomas B. Symons, Dean of the College of Agriculture and Director of the Extension Service, chairman; James W. Coddington, Land Use Planning Specialist, executive secretary; F. W. Besley, State Forester; T. Roy Brookes, Master of the State Grange; Edward M. Davis, State Coordinator for the Soil Conservation Service; W. E. Burall, general farming; E. N. Cory, State Entomologist; Simon L. Downey, livestock farming; Albert C. Dunn, Bureau of Public Roads; Alan Ebert, Regional Supervisor for the Farm Security Administration; E. Lee LeCompte, State Game Warden; Samuel Linton, tobacco grower; L. C. Morley, Biological Survey; H. H. Nuttle, vegetables and canning crops; Paul E. Nystrom, Assistant State County Agent Leader; Austin F. Shure, State Roads Commission; R. G. Stelzer, State Supervisor of AAA; R. W. Carpenter, drainage; Mrs. Randall Spoerlein, President of the State Council of Homemakers' Clubs; Mrs. R. C. F. Weagley, Women of the Maryland Farm Bureau.

Similar committees were formed in all counties and a number of counties extended the planning organization to community committees.

Extension workers have assisted in formulating plans and providing information essential to sound land use planning on a community and county basis. Facts are being provided regarding land classification, production, marketing and farm management involved in connection with tomatoes, cantaloupes and cucumbers on the Eastern Shore, and also the social geography of certain counties.

As a result of the attention focused on this important, long-time project, farm people of all classes and ages are devoting their efforts to working out the best programs for their industry

and their mode of life in a way that promises great development in the future. They are looking to the Extension Service for aid and leadership in all phases of this endeavor and the wide variety of extension projects carried on through the years are being welded into the land use programs.

Increased Participation in AAA Program

DURING the year 1939, approximately 23,250 farmers in Maryland participated in the AAA program. The farms owned and operated by those participating represented approximately 72 percent of the farm land in the State. In return for their cooperation, these 23,250 farmers earned cash payments of $2,001,000. From the beginning of the AAA programs there has been paid to Maryland farmers approximately $10,100,000 as benefit payments or as payments earned by practicing approved conservation methods on their farms.

As an indication of the tangible results in the way of conservation that are being obtained, let us compare the extent to which some recognized soil-building practices are being carried out now and a few years ago. In 1936, new seedings of grasses and legumes were made on 306,858 acres, and in 1939 on 514,254 acres; green manure crops were grown on 32,738 acres in 1936 and on 105,669 acres in 1939; applications of lime in 1936 amounted 72,177 tons and in 1939 to 145,818 tons; and applications of superphosphate in 1936 were 1,654 tons and in 1939 were 2,528 tons.

Soil Conservation Districts

SOIL EROSION has been taking severe toll of Maryland farms for years. Erosion of the type that causes most of the loss in this State takes place so gradually—a little of the top soil being carried away with each rain—that its seriousness is not appreciated by many land owners.

Progress toward effective control and prevention of loss by erosion is one of the greatest accomplishments of the year.

By means of extensive demonstration areas in different parts of the State, conducted during the last few years by the Soil Conservation Service in cooperation with the Extension Service, together with educational efforts, a large percentage of land

owners and operators were made aware of the situation and interested in practical steps for erosion control. In order to provide a means whereby farmers in any area could proceed in an organized way to protect their soils, a law—known as the "Soil Conservation Districts Law"—was enacted by the Maryland Legislature in 1937. It provides for a State Soil Conservation Committee, and specifies the procedure whereby the occupiers of land in a given area may organize themselves into a Soil Conservation District. It provides, also, for setting up a definite program by the farmers and for obtaining technical assistance.

Measures to control erosion on the farm of B. F. Shriver Company.

Five such districts, comprising more than one-fifth of the total land area of the State, have been formed to date. The oldest conservation district in Maryland includes all the agricultural lands in Kent county and has been operating for more than a year. During the year, the following districts were formed: Catoctin District in the Middletown Valley; Gunpowder Falls-Deer Creek District, which includes the agricultural lands of Baltimore and Harford counties; Monocacy District, embracing agricultural lands draining into the Monocacy River, or its

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tributaries, in Carroll and Frederick counties; and, a district including all of Washington county.

Rural Electrification

THE PROGRESS made in extending the benefits of electricity to farms and rural homes is one of the most gratifying developments of the last few years, and continued in 1939. While an educational program including all members of the family has been carried out through the State, two areas have had the benefit of projects carried out through the aid of the Rural Electrification Administration. In Southern Maryland the Tri-County Cooperative has 279 miles of line for 988 members. The Choptank Cooperative on the Eastern Shore has 267 miles of line for 733 members. Other localities in the State are interested and in some the necessary petitions have been signed with a view to forming cooperative electrical associations.

Other Federal Programs

THE EXTENSION SERVICE has cooperated in bringing the benefits of a number of Federal activities to the farmers of the State. In the case of some products, the marketing situation was improved materially by the operations of the Federal Surplus Commodities Corporation. Marketing specialists and the agents in the counties affected assisted in carrying out the purchasing program.

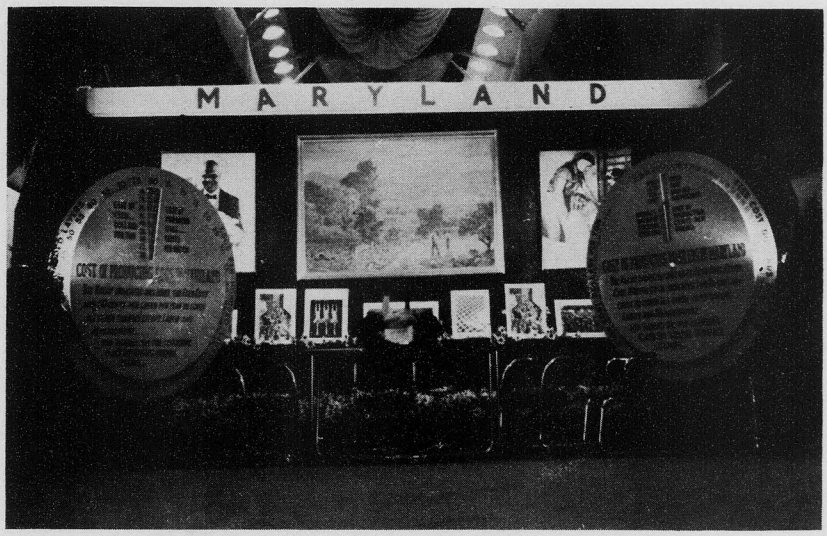
Cooperation was given also to the Farm Security Administration in the several phases of its program designed to assist some of those less fortunate in the agricultural industry. In addition to continuation of loans and grants of aid, which required development of sound plans for farm and home management, and the adjustment of indebtedness, the program for assisting worthy tenants made a substantial start. With the allocation of funds available, six tenants were given the assistance necessary to place them on farms as owners.

Poultry Progress

THE EXTENSION SERVICE joined with other departments of the University of Maryland and other agencies in planning and carrying out a notable Poultry Day on July 26. The day was featured by dedication of a new poultry building and

plant, which with other facilities make it possible to provide much more adequate service to the poultry industry than could be done in past years. Approximately 125 representatives of 39 foreign countries, including many world authorities on poultry subjects, were guests for the day, and participated in the dedication ceremonies. They had come to this country as representatives of their respective countries at the World's Poultry Congress.

The international aspect of the event became evident when the words of welcome by Governor Herbert R. O'Conor were responded to in both English and German and interpreted from one language to the other.



Maryland's exhibit at the Seventh World's Poultry Congress, held in Cleveland, Ohio. In the center is a large painting showing the Middletown Valley, and featuring a poultry farm in the foreground. At the ends of the exhibit are mechanically operated machines which showed costs of producing broilers and eggs in Maryland.

More complete report of Maryland's participation in the World's Poultry Congress is given in the discussion of poultry activities.

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progress that is being made through the close cooperation of all interested.

An attractive handbook, presenting Maryland's poultry industry, was distributed widely in the State and at the World's Poultry Congress.

Red-Letter Day for Stockmen

AN OUTSTANDING event in the development of the dairy and livestock industries of the State was the dedication on October 21 of the new facilities at the University, including buildings, equipment and land. These new buildings were made possible by the efforts of President Byrd and the cooperation of the Works Project Administration of the Federal Works Agency.

The University now has, for the first time, facilities in these lines commensurate with the industries represented, and through these facilities it has been able to effect much needed improvement in its herds and flocks, its teaching, research, extension and disease control.

The rapidly growing interest in high-quality livestock of all types that has manifested itself in Maryland during recent years has placed a heavy burden on the extension workers in these lines, even to partially meet the demands. With the greatly improved facilities, it is hoped that much more adequate service can be rendered. The stockmen, both through their organizations and as individuals, have given effective support in building up the service to their industry.

A booklet, comprised principally of illustrations, presented the new buildings and lands, as well as many of the best specimens of livestock, in an effective manner.

Twenty-Fifth Anniversary

IN OBSERVANCE of the Twenty-Fifth Anniversary of Extension Work, a State Committee was appointed early in the year. In addition to those in the Extension Service who had been in various lines of work for the longest period, there were included on the State Committee one or more representatives of all the farm and home organizations and a number of recognized leaders throughout the State.

It was decided that no observance, or celebration, would be planned by the Extension Service as an organization, but that

it would give every assistance to groups in anniversary events they might arrange.

While a complete report of such events has not been assembled, it is known that in one way or another the anniversary was observed by one or more events in all, or practically all, counties. In most cases it was recognized in connection with farm and home events, such as picnics, meetings of local rural organizations, exhibits, and the like. In a number of counties, special editions of local papers were issued, in which there were combined a certain amount of history of extension work with a general presentation of its present-day activities.

A brief outline of the development of the work in Maryland was prepared and distributed, which was used widely, both in planning local events and in the local papers.

The anniversary year served an exceedingly valuable purpose for practically all extension workers, and for the hundreds of loyal leaders throughout the State who have given and are giving unstintingly of their time and effort. It caused all of them to think seriously of the possible accomplishments in the future, when viewed with the experience of the past. It resulted in a searching analysis of the conditions encountered and progress made in the development of extension work.

In the broadest possible terms, it can be said that the outstanding accomplishment as a combined result of the numerous activities carried on under widely changing conditions through the quarter-century is the extent to which rural people have been helped to make practical use of scientific information and discoveries, and information of other kinds, in adapting their operations to the ever-changing set of conditions and circumstances that together constitute agriculture and rural life.

Crop Yields and Values

MARYLAND farmers harvested 1,652,200 acres of all crops in 1939, which is about four percent less than the acreage harvested in 1938. Increases in the acreages of corn, barley, rye, tame hay and tobacco were more than offset by decreases in the acreages of winter wheat and truck crops.

Excessive spring rains, followed by unusually dry weather during the early summer, reduced crop prospects materially. Early truck, strawberries and early potatoes were cut short; hay

and grains suffered for want of timely rains; tobacco had some early setbacks, but came through in fair to good shape.

Better prices for general field crops offset the lower prices for truck crops, so that the total value of farm production was a little higher than in 1938. The total farm value of all Maryland crops produced in 1939 is estimated at $43,506,000, or three percent more than the corresponding value in 1938. To the value for 1939 production should be added approximately $2,000,000 which was earned by some 23,000 farmers who cooperated in the conservation program.

Yields per acre were lower than last year for most crops, but the difference was not large. Growers of sweet potatoes, strawberries and tomatoes had higher yields.

Total production was greater for barley, rye, sweet potatoes, tobacco, apples, peaches, tomatoes, cantaloupes, and strawberries.

Prices were better than the preceding year for corn, wheat, oats, rye, buckwheat, potatoes, hay, tobacco, and snap beans.

The total value was greater for corn, barley, rye, potatoes, sweet potatoes, hay, tobacco, apples, peaches, tomatoes and cantaloupes.

Crops to which increased acreage was devoted were corn, barley, rye, sweet potatoes, hay, and tobacco. Among the more significant increases in acreage were the increase from 43,000 to 72,000 for barley, 14,000 to 20,000 for rye, and 397,000 to 413,000 for all tame hay. The acreage of wheat was 94,000 acres smaller; of tomatoes for manufacture was 10,400 acres smaller; of sweet corn, 9,600 acres smaller; of snap beans for manufacture was 3,200 acres smaller; and of green peas, 4,900 acres smaller.

Numbers of cattle and hogs on farms January 1, 1940, showed an increase over the numbers on January 1, 1939. These increases amounted to 4,000 dairy cows and heifers two years and over, 12,000 head of other cattle, and 21,000 hogs, including pigs. Values per head of livestock were a little lower, with the exception of sheep and lambs.

A tabulation of the acreages, yields and values of the principal crops grown in Maryland and the numbers of livestock on farms on January 1, 1940, is given in the following table. For the sake of comparison, corresponding figures are given for the two preceding years. These estimates are furnished by the Bureau of

Agricultural Economics in cooperation with the Extension Service.

PRODUCTION AND VALUE OF CROPS

Crop and Year	Acres	Per Acre	Total	Unit	Per Unit	Total	Value Per Acre
Corn							
1939	506,000	36.00	18,216,000	Bus.	$.62	$11,294,000	$22.33
1938	501,000	37.00	18,537,000	"	.55	10,195,000	20.35
1937	516,000	36.00	18,576,000	"	.61	11,331,000	21.96
Wheat							
1939	377,000	19.5	7,352,000	"	.78	5,735,000	15.20
1938	471,000	20.0	9,420,000	"	.63	5,935,000	12.60
1937	476,000	19.0	9,044,000	"	1.02	9,225,000	19.38
Oats							
1939	41,000	27.5	1,128,000	"	.43	485,000	11.83
1938	41,000	32.0	1,312,000	"	.37	485,000	11.83
1937	38,000	28.5	1,083,000	"	.44	476,500	12.54
Barley							
1939	72,000	30.0	2,160,000	"	.47	1,015,000	14.10
1938	43,000	30.5	1,312,000	"	.48	630,000	14.65
1937	36,000	33.0	1,188,000	"	.65	772,000	20.32
Rye							
1939	20,000	12.5	250,000	"	.66	165,000	8.25
1938	14,000	12.5	175,000	"	.62	108,000	7.71
1937	16,000	13.0	208,000	"	.85	176,800	11.05
Buckwheat							
1939	5,000	20.0	100,000	"	.62	62,000	12.40
1938	6,000	20.0	120,000	"	.60	72,000	12.00
1937	5,000	19.5	98,000	"	.70	69,000	13.80
Potatoes							
1939	25,000	95.0	2,375,000	"	.91	2,161,000	86.44
1938	26,000	115.0	2,990,000	"	.62	1,854,000	71.31
1937	30,000	116.0	3,480,000	"	.61	2,123,000	70.76
Sweet Potatoes							
1939	9,000	160.0	1,440,000	"	.70	1,008,000	112.00
1938	8,000	130.0	1,040,000	"	.80	832,000	104.00
1937	8,000	125.0	1,000,000	"	.64	640,000	80.00
Hay (All Tame)							
1939	413,000	1.25	516,250	Tons	10.60	5,491,000	13.40
1938	397,000	1.41	558,000	"	9.40	5,245,000	13.20
1937	385,000	1.35	518,000	"	11.60	6,009,000	15.60
Tobacco							
1939	38,200	780.0	29,796.000	Lbs.	.19	5,661,000	148.20
1938	37,500	780.0	29,250,000	"	.188	5,499,000	146.64
1937	35,000	670.0	23,450,000	"	.175	4,104,000	117.25

PRODUCTION AND VALUE OF CROPS (Continued)

Crop and Year	Acres	Per Acre	Total	Unit	Per Unit	Total	Value Per Acre
Apples (Com'l Crop)							
1939	.....	.....	1,700,000	Bus.	.65	1,105,000	.....
1938	.....	.....	1,419,000	"	.71	1,007,000	.....
1937	.....	.....	1,750,000	"	.63	1,102,500	.....
Peaches							
1939	.....	.....	427,000	"	.95	406,000	.....
1938	.....	.....	352,000	"	1.10	387,000	.....
1937	.....	.....	448,000	"	1.05	470,000	.....
Tomatoes (For Mfg.)							
1939	45,600	4.5	205,200	Tons	13.90	2,852,000	62.54
1938	56,000	2.9	162,400	"	14.10	2,290,000	40.89
1937	61,000	2.9	176,900	"	12.70	2,247,000	36.83
Sweet Corn (For Mfg.)							
1939	24,400	2.1	51,200	"	9.10	466,000	19.10
1938	34,000	2.5	85,000	"	11.20	952,000	28.00
1937	38,100	2.2	83,800	"	13.00	1,089,000	28.58
Cantaloupes							
1939	9,100	95.0	864,000	Crts.	.60	518,000	56.92
1938	9,400	75.0	705,000	"	.60	423,000	45.00
1937	8,500	100.0	850,000	"	.65	552,000	65.00
Strawberries							
1939	7,900	60.0	474,000	"	2.15	1,019,000	129.00
1938	8,100	55.0	446,000	"	2.95	1,316,000	162.47
1937	7,700	80.0	616,000	"	2.20	1,355,000	175.97
Snap Beans (For Mfg.)							
1939	9,500	1.6	15,200	Tons	39.80	605,000	67.90
1938	12,700	1.7	21,600	"	38.40	829,000	64.72
1937	10,100	1.6	16,200	"	42.80	693,000	68.60
Green Peas (For Mfg.)							
1939	14,000	1269 Lbs.	8,820	"	50.50	445,000	31.80
1938	18,900	1880 "	17,770	"	52.90	940,000	49.73
1937	20,250	1800 "	18,220	"	57.30	1,044,000	51.55

LIVESTOCK ON FARMS

January 1, 1940

	Number	Value Per Head	Total Value
Horses and Colts	82,000	$103.00	$ 8,481,000
Mules and Mule Colts	28,000	131.00	3,668,000
Dairy Cows and Heifers (2 yrs. and over)	202,000	61.00	12,322,000
All Other Cattle and Calves	136,000	31.40	4,271,000
Sheep and Lambs	77,000	7.10	545,000
Swine, Including Pigs	231,000	6.80	1,566,000
Chickens	3,904,000	.76	2,967,000

ADMINISTRATION

THE ADMINISTRATION work of the Service has been carried on in similar manner to former years. The Assistant Directors, Mr. E. I. Oswald and Miss Venia M. Kellar, have assumed increased responsibilities in their respective fields.

The administration of the Service has been more difficult with increasing demands and limited funds. We have never been confronted with greater difficulties than during the past year.

Mr. P. E. Nystrom has served as Assistant County Agent Leader in association with other activities under the Agricultural Adjustment Administration.

The devotion of leaders to the work has been of great assistance in promoting cooperation among all forces.

The relationship of the Service to other educational institutions in the State has continued on a cooperative basis. Splendid cooperation exists between our Vocational forces. Assistant Dean H. F. Cotterman is State Supervisor of Vocational Education and this enables the programs to be integrated and carried out cooperatively.

We continue to express our appreciation for the cooperation of farm organizations, the State Grange, State Farm Bureau, and Boards of County Commissioners. All forces in the State are welded together in closely coordinated effort.

The State Committee on Soil Conservation is set up at the institution with the Director of Extension as Chairman. This enables the work of the State Conservation Service, through the cooperation of the State Coordinator, Mr. E. M. Davis, to be integrated with Extension Service work in the several Counties and Soil Conservation Districts.

The great burden of the Service has been to care for the increased duties through various governmental activities without being able to employ assistants in the field. Our County Agents have gladly assumed additional responsibilities, but there is naturally a limit to their abilities. It is the urgent hope of the writer that additional funds will become available in the near future to relieve the great pressure that now rests upon County Extension forces. We need this assistance to pursue the regular Extension activities which are more and more demanded by our rural people.

I am pleased to acknowledge with warmest gratitude the loyal support of all forces, especially the Assistant Directors, P. E. Nystrom, and A. H. Snyder, Extension Editor, who is largely responsible for the preparation of this Annual Report.

EMPLOYEES AT HEADQUARTERS—1939

THOMAS B. SYMONS	Director
E. I. OSWALD	Assistant Director
MISS VENIA M. KELLAR	Assistant Director
A. H. SNYDER	Extension Editor
P. E. NYSTROM	County Agent Leader and Specialist in Farm Management
E. G. JENKINS	State Boys' Club Agent
MISS DOROTHY EMERSON	Girls' Club Agent
MISS FLORENCE H. MASON	District Agent and Specialist in Home Furnishing
MISS K. G. CONNOLLY	Administrative Assistant
*G. J. ABRAMS	Specialist in Apiculture
W. R. BALLARD	Specialist in Landscape and Vegetable Gardening
H. C. BARKER	Specialist in Dairying
W. C. BEAVEN	Specialist in Marketing
*H. R. BIRD	Specialist in Poultry Nutrition
*T. C. BYERLY	Specialist in Poultry
*R. W. CARPENTER	Specialist in Agricultural Engineering
O. R. CARRINGTON	Assistant Extension Editor
J. A. CONOVER	Specialist in Dairying
*E. N. CORY	Specialist in Entomology
JOHN COTTON	Specialist in Soil Erosion
S. L. CROSTHWAIT	Horticultural Inspector
*S. H. DEVAULT	Specialist in Marketing
L. S. DODSON	Specialist in Sociology
LAWRENCE E. DOWNEY	Assistant Marketing Specialist
MYLO S. DOWNEY	Assistant in Club Work
*CASTILLO GRAHAM	Assistant Specialist in Entomology
J. M. GWIN	Specialist in Marketing Poultry Products
*W. E. HARRISON	Assistant Specialist in Marketing
MISS JESSIE D. HINTON	Home Management Specialist
H. A. HUNTER	Specialist in Canning Crops
*KENNETH C. IKELER	Specialist in Dairy and Animal Husbandry
*R. A. JEHLE	Specialist in Plant Pathology
*MORLEY A. JULL	Specialist in Poultry
A. V. KREWATCH	Specialist in Agricultural Engineering
G. S. LANGFORD	Specialist in Insect Control
J. W. MAGRUDER	Specialist in Agronomy
A. F. MARTIN	Assistant Specialist in Marketing
MISS MARGARET MCPHEETERS	Specialist in Nutrition
*DEVOE MEADE	Specialist in Animal Husbandry
W. B. POSEY	Specialist in Tobacco
*HARLAN RANDALL	Specialist in Music
W. H. RICE	Specialist in Poultry
S. B. SHAW	Specialist in Marketing, and Chief of Maryland State Department of Markets
MISS HELEN SHELBY	Specialist in Clothing
M. M. SHOEMAKER	Specialist in Landscape Gardening
*C. B. SMITH	Specialist in Farm Management
*C. E. TEMPLE	Specialist in Plant Pathology
J. M. VIAL	Specialist in Animal Husbandry
A. F. VIERHELLER	Specialist in Horticulture
*E. A. WALKER	Horticultural Inspector
*E. P. WALLS	Specialist in Marketing and Canning Crops
F. B. WHITTINGTON	Assistant Specialist in Entomology
CHARLES WILLIAMS	Specialist in Poultry
C. F. WINSLOW	Specialist in Forestry

*Part-time Specialist.

COUNTY AGENTS—1939

County	Name	Headquarters
Allegany	R. F. McHENRY	Cumberland
Anne Arundel	STANLEY E. DAY	Annapolis
Baltimore	H. B. DERRICK	Towson
Calvert	JOHN B. MORSELL	Prince Frederick
Caroline	G. W. CLENDANIEL	Denton
Carroll	L. C. BURNS	Westminster
Cecil	J. Z. MILLER	Elkton
Charles	P. D. BROWN	La Plata
Dorchester	WM. R. McKNIGHT	Cambridge
Frederick	H. R. SHOEMAKER	Frederick
Garrett	JOHN H. CARTER	Oakland
Harford	H. M. CARROLL	Bel Air
Howard	W. G. MYERS	Ellicott City
Kent	J. D. McVEAN	Chestertown
Montgomery	O. W. ANDERSON	Rockville
Prince George's	P. E. CLARK	Upper Marlboro
Queen Anne's	MARK MILLER	Centerville
St. Mary's	JULIUS JOHNSON	Leonardtown
Somerset	C. Z. KELLER	Princess Anne
Talbot	R. S. BROWN	Easton
Washington	M. D. MOORE	Hagerstown
Wicomico	J. P. BROWN	Salisbury
Worcester	R. T. GRANT	Snow Hill

ASSISTANT COUNTY AGENTS

Allegany, Garrett and Washington	H. W. BEGGS	Cumberland
Baltimore	J. WHEELER ENSOR	Towson
Harford	W. SHERARD WILSON	Bel Air
Kent	STANLEY SUTTON	Chestertown
Montgomery	RUFUS KING	Rockville
Carroll, Frederick and Howard	CHARLES REMSBERG	Frederick
Caroline, Talbot and Dorchester	CHARLES FULLER	Easton
Queen Anne's	CHESTER CISSEL	Centerville

Local Agents (Negro Work)

Southern Maryland	MARTIN G. BAILEY	Seat Pleasant
Eastern Shore	L. H. MARTIN	Princess Anne

HOME DEMONSTRATION AGENTS—1939

County	Name	Headquarters
Allegany	MAUDE A. BEAN	Cumberland
Anne Arundel	MRS. GEORGIANA LINTHICUM	Annapolis
Baltimore	ANNA TRENTHAM	Towson
Calvert	ANGELA M. FEISER	Prince Frederick
Caroline	BESSIE M. SPAFFORD	Denton
Carroll	ADELINE M. HOFFMAN	Westminster
Cecil	HELEN I. SMITH	Elkton
Charles	MARY GRAHAM	La Plata
Dorchester	HATTIE E. BROOKS	Cambridge
Frederick	FLORENCE E. WILLIAMS	Frederick
Garrett	MILDRED E. BARTON	Oakland
Harford	CATHARINE MAURICE	Bel Air
Howard	KATHRYN E. NEWTON	Ellicott City
Kent	HELEN E. SCHELLINGER	Chestertown
Montgomery	EDYTHE M. TURNER	Rockville
Prince George's	ETHEL M. REGAN	Hyattsville
Queen Anne's	HELEN HARNER	Centerville
St. Mary's	ETHEL JOY	Leonardtown
Somerset	HILDA TOPPER	Princess Anne
Talbot	MARGARET SMITH	Easton
Washington	ARDATH E. MARTIN	Hagerstown
Wicomico	JUDITH AULT	Salisbury
Worcester	LUCY J. WALTER	Snow Hill

ASSISTANT HOME DEMONSTRATION AGENTS

Allegany	MARGARET T. LOAR	Cumberland
Baltimore and Harford	ELIZABETH R. JOHNSON	Towson

Local Home Demonstration Agents—(Negro Work)

Charles, St. Mary's, Prince George's and Montgomery	MRS. ARMINTA DIXON	106 Rhode Island Ave. Brentwood, Md.
	MISS DOROTHY RANSOM, Assistant	106 Rhode Island Ave. Brentwood, Md.
Somerset	MRS. JUSTINE N. CLARK	Princess Anne

Changes in Personnel

C. Z. Keller returned to his duties as County Agent in Somerset County April 1, 1939. He had been acting as District Agent and State Executive Officer in Soil Conservation since August 25, 1938.

Howard H. Anderson resigned as temporary Assistant County Agent in Somerset County, March 31, 1939.

Miss Agnes P. Soper resigned as Assistant Home Demonstration Agent at Large, January 21, 1939.

Kenneth W. Baker resigned as County Agent in Queen Anne's County, June 30, 1939.

Mark K. Miller was transferred from Assistant County Agent to County Agent in Queen Anne's County, July 1, 1939.

Chester M. Cissel was appointed Assistant County Agent in Queen Anne's County, August 16, 1939.

Miss Ruby Lee Kirk resigned as County Home Demonstration Agent in Queen Anne's County, June 30, 1939.

Miss Helen M. Harner was appointed County Home Demonstration Agent in Queen Anne's County, August 1, 1939.

Charles S. Richardson retired as General Educational Specialist, July 31, 1939.

Howard J. Twilley resigned as Marketing Specialist, July 7, 1939.

Miss Margaret T. Loar was granted leave of absence as Assistant County Home Demonstration Agent in Allegany County, October 1, 1939.

Miss Thelma Ryan was appointed as temporary Assistant County Home Demonstration Agent in Allegany County, October 1, 1939.

Walter F. Jeffers was appointed Strawberry Disease Specialist, October 1, 1939.

Earnest A. Walker was appointed Tobacco Disease Specialist, October 1, 1939.

Lawrence E. Downey was appointed Specialist to enforce the Fresh Egg Law, October 1, 1939.

James F. Armstrong, Local Agent (colored) in Southern Maryland, died, January 27, 1939.

Martin G. Bailey was appointed Local Agent (colored) in Southern Maryland, July 5, 1939.

Miss C. M. Corbin resigned as temporary Assistant Local Home Demonstration Agent (colored), January 31, 1939.

Mrs. Arminta J. Dixon was reappointed Local Home Demonstration Agent (colored) in Southern Maryland, February 1, 1939. She had been on leave of absence since January 1, 1938.

Sources of Extension Revenue

During the fiscal year ending June 30, 1939, there were available for Extension Work the following funds: Federal Smith-Lever, $60,023.83; Federal Smith-Lever Supplementary, $4,800.53; Bankhead-Jones, $97,738.39; Capper-Ketcham, $26,076.61; Additional Federal Cooperative Funds, $6,700.00; State Funds for Agriculture and Home Economics Extension, $108,670.31; Special Dairy Funds, $4,037.63; Cantaloupe Fund, $1,500.00; State Horticultural Fund, $12,014.01; Miscellaneous Funds, including Advanced Registry, State Department of Forestry Funds, Marketing Inspection Funds, etc., $54,451.20; and $67,211.52 contributed by the various counties; or a total of $443,224.03. In addition, $22,486.58 was used for Insect Control Work, and $13,745.64 was disbursed by the U. S. Department of Agriculture; making a grand total of $479,456.25. Also $40,000.00 was used from an emergency appropriation for Japanese Beetle Control.

During the present fiscal year ending June 30, 1940, there are available: Federal Smith-Lever, $60,023.83; Bankhead-Jones, $105,496.71; Capper-Ketcham, $26,076.61; Further Development Funds, $3,742.21; State Funds for Agriculture and Home Economics Extension, $91,472.00; Special Dairy Funds, $3,319.27; Cantaloupe Fund, $1,500.00; State Horticultural Funds, $11,637.17; Strawberry Disease Fund, $3,375.00; Tobacco Disease Fund, $3,375.00; Bee Disease Fund, $1,500; Fund for Enforcement of Fresh Egg Law, $4,500; Soil Conservation and Drainage Fund, $5,625.00; Miscellaneous Funds (estimated), including Advanced Registry, State Department of Forestry Funds, Marketing Inspection Funds, etc., $45,000.00; and $69,229.50 contributed by the various counties; or a total of $435,872.30. In addition, there are available $20,051.81 for Insect Control Work, and $18,085.00 disbursed by the U. S. Department of Agriculture, making a grand total of $474,009.11. Also, there is available about $40,000.00 for official Japanese Beetle Control Work in cooperation with the U. S. Bureau of Plant Quarantine.

Equipment

Practically the only additions to equipment during the year were in the way of replacements. More space is needed badly for housing some phases of the work at headquarters, but it was not possible to make any substantial changes in that line. In most of the counties, the representatives of the Service are fairly well provided, both as to quarters and equipment.

Records of Work

The value of adequate records was particularly evident in 1939, because of the attention given to the twenty-fifth anniversary and the occasion for referring to the developments during that period. A great deal of satisfaction was derived from such records as had been kept, and the need for even more complete records was apparent. The size of the organization has grown to such proportions, and the lines of work have become so numerous and complex that the matter of keeping adequate records taxes the forces and facilities available for that kind of work. This applies especially to what may be termed brief, narrative reports which set forth important developments with sufficient information regarding them to convey an accurate idea some years hence as to their import. The ten-year summaries prepared and published thus far have proved well worth the time and expense involved and it is hoped that a similar summary may be prepared at the end of the third decade of extension work.

The essential records pertaining to such matters as financial affairs were handled in a satisfactory manner by Miss K. G. Connolly, Administrative Assistant, and her associates.

The number of first-class letters mailed from headquarters during the year was 69,984, and the total pieces of mail numbered 175,154. In all, 148,221 first-class letters were sent by the Service throughout the State.

PUBLICATIONS

PUBLICATIONS of various types, the cooperation of the public press, visual aids, and radio were of great help in carrying out all phases of the extension program.

Bulletins and circulars were used in connection with other teaching methods and for disseminating timely information. Spe-

cial attention was given to adapting them to the purposes they were intended to serve. A list of the publications issued during the year is presented.

The public press, including daily and weekly newspapers and various special or class publications, has been increasingly cooperative in publishing news and information pertaining to agricultural affairs and events. A news service was supplied regularly to the press throughout the year and articles on special topics were supplied on request.

A monthly publication—The Extension Service News—was issued regularly and sent to approximately 3,000 leaders in rural affairs. Such a publication has been found of value in keeping leaders informed on activities and progress that is being made, and on farm and home developments that are of special interest to them.

Special Events—Those responsible for publications of the Extension Service rendered substantial assistance in connection with two outstanding events during the year. The first was the World's Poultry Congress, and Maryland's participation in it, which required a campaign of news and information extending over a number of months. The culmination was Poultry Day at the University, which was featured by a visit of all foreign delegates and the dedication of a new poultry building and plant. An attractive "Maryland Poultry Handbook" was issued.

Later in the year, the new facilities for dairy and livestock work at the University were dedicated. A most attractive booklet was issued in connection with that event.

Visual Aids and Exhibits—The use of charts, maps, graphs and other forms of visual aids continued to increase and there is demand for more complicated work and greater ingenuity in presentation. The same is true with respect to illustrations and lay-outs for publications. A number of rather extensive and high-class exhibits during the year depended largely upon the Extension Service for preparing the material.

Radio—Five commercial radio stations broadcast the "Farm Flash" material of the U. S. Department of Agriculture, with such modification and localization as extension specialists and agents provided. A number of special radio programs were broadcast or prepared by the Service.

A view during the broadcast of a radio program from the campus of the University of Maryland in the National Farm and Home Hour. The program was heard over a coast-to-coast net-work of more than 90 stations.

On November 20, the program of the "National Farm and Home Hour" was broadcast from the campus of the University of Maryland. The theme of this program was "How the Land-Grant College Serves the State in the Conservation and Utilization of Its Resources." It was broadcast over a network of more than 90 stations.

Publications Issued During the Year—During the period from January 1, 1939, to January 1, 1940, the following publications were issued: Bulletin 49 (revised), "A New Touch on the Old Furniture," 20 pages, 5,000 copies; Bulletin 84, "Common Insects of Lawns, Ornamental Shrubs and Shade Trees," 60 pages, 3,000; Circular 132, "Maryland Chicks of Quality," 20 pages, 1,500; Pamphlet, "Maryland Spray Calendar for Apples and Peaches," 4 pages, 3,400; Pamphlet, "Problems Immediately Ahead in Agriculture," 20 pages, 1,000; Pamphlet, "Your Organization at the Bat," 8 pages, 500; Pamphlet, "Maryland Looks Ahead," 8 pages, 500; 4-H Club Poultry Record Book, 12 pages,

2,000; 4-H Club Livestock Record Book, 16 pages, 2,000; Seven Letters, "Livestock Feeding and Home-Grown Feed Production," 1 page each, 3,000 copies each; Annual Report of the Extension Service, 88 pages, 2,000; Extension Service News, 4 pages, 2,500 copies each month.

COUNTY DEMONSTRATION WORK

THE GROWING complexity of social and economic conditions and the inability of the farmer as an individual to "go it alone" have given rise to many new and complicated programs, each designed to help farmers deal with a particular problem with which they could not cope individually.

To interpret these programs and adapt them to local conditions, and to direct and correlate them into the one program of helping farm people achieve a higher standard of living has become one of the principal functions of county extension workers.

County agents have welcomed the responsibility of coordinating these many activities. Farm people have come to them in ever-increasing numbers for guidance. New opportunities for service have been provided, and the prestige and influence of extension workers, built up through 25 years of successful leadership, have been increased.

Unified Programs—Coordination of the numerous activities in Maryland has been accomplished in many ways. County agents have unhesitatingly accepted the role of leadership in each of the new programs and through every available means have carried to rural people generally the education and information essential to an understanding of the functions and services offered by each of the new agencies.

In order to most effectively direct all activities toward the solution of major problems in the several counties, the county extension workers, with the advice and assistance of leading farm people, have planned systematic programs of work. In planning these programs, representative farm men and women in each county served as land use planning committees. They enumerated the problems, suggested solutions, and endeavored to fit together the contributions of all agencies in providing solutions.

A view during the broadcast of a radio program from the campus of the University of Maryland in the National Farm and Home Hour. The program was heard over a coast-to-coast net-work of more than 90 stations.

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County agents served as secretaries of land use planning committees, of county agricultural conservation committees, of farm security committees, and of county boards of soil conservation supervisors. They also rendered valuable assistance to such organizations as the Farm Bureau, Grange, community clubs, cooperative marketing and purchasing associations, and the various livestock breed associations, steering the programs of all these organizations in the direction of bringing about improvement in the major rural problems.

Coordination of the many programs and the efforts of the many agencies into a well-rounded attack upon the most pressing rural problems was a vital need of the year. Because they were integral parts of the respective communities in which they were located, because of their intimate relation to all organizations and agencies, and because of the confidence that had been established in their leadership, the county extension workers were able to accomplish outstanding service in bringing about the necessary correlation.

Conservation—As the leading adult educational institution, the Extension Service has taken the lead in presenting the importance of the conservation problem by every available means. As a result, there has been created in the minds of the public a consciousness of the need for greater conservation of all resources—soil, forest and human.

Most of the specific accomplishments in this line are presented elsewhere in this report. It is noted here, however, that the extension workers in the counties had a large share of the responsibility for execution of the programs by the people in their respective counties. Another exceedingly important factor has been the growth and development of a strong and aggressive farm leadership. An active Farm Bureau in each county and granges in the majority of counties provided able local leadership for extension work.

Farm Production—Although many of the newer and larger problems confronting farm people were principally economic, production problems are still basic in successful and profitable agriculture and were given a great deal of attention by county agents. The introduction of new varieties of farm crops, the teaching of improved practices and techniques in the growing of quality

products and in grading and marketing them, the most effective methods for control of diseases and insect pests, and many other factors connected with efficient production were demonstrated under local conditions. The spread of influence indirectly from such demonstrations and from other methods of disseminating practical, usable information, cannot be measured.

Marketing—It has become increasingly apparent that the problems associated with marketing the wide variety of farm products grown in Maryland are among the most important affecting the welfare of rural people. The major activities of the Extension Service in that field are summarized elsewhere. As is true of nearly all lines of extension work, the county workers have a vital role in helping growers to market their products more efficiently. The character of service rendered varies widely according to the character of the products. In some cases, the assistance was principally in cooperative marketing organizations handling the leading product or products of the county. In some areas, valuable aid was given in disposing of surplus commodities. A general objective common to practically all counties and to all commodities was the improvement in quality of products offered on the market, including proper grading and standardization.

County Workers—Throughout the year, there was a county agent in each of the 23 counties, and eight assistant county agents provided additional service in 13 counties. Assisting these county forces is a small staff of highly-trained specialists to make available the latest information in the several lines of work, and to afford more adequate service in other ways. The workers in the counties are under the supervision of a County Agent Leader, who is also Assistant Director of Extension, and an Assistant County Agent Leader.

Negro Demonstration Work

In the Southern Eastern Shore counties and in Southern Maryland, where the colored population is most concentrated, five local agents—two men and three women—conducted work with colored people. In the other counties, the white agents assisted colored people with their farm and home problems.

The type of farming practiced by most Negroes in Maryland is such that it has not been substantially affected by the so-called

action programs of recent years. Their extension programs are similar to those carried out in former years and are aimed quite largely at improved standards of living through producing and conserving more of the products needed for the family. Gardening and poultry raising have been strong phases of the programs carried out with colored people. Fine progress has been made in providing better and more sanitary living conditions. The work done by colored boys and girls in 4-H clubs ranks high in accomplishment and is among the most valuable phases of the work.

HOME DEMONSTRATION WORK

THE PROGRAM carried out with the rural women and girls has become so broad in its scope that it is very difficult to summarize or evaluate. This is particularly true because it deals so much with human values, as well as material things.

Certain trends have been evident for a number of years and became even more evident in 1939. While not relaxing their interest in the strictly home-making problems, the women have shown an increasing desire to develop themselves in the so-called cultural subjects. Likewise, they have taken an interest and active part in affairs affecting the economic situation on the farm and in the farm home. And in all of the activities, both with adults and juniors, the women and girls have shown the ability to carry greater responsibilities themselves in planning and carrying out constructive programs. This latter development has been of tremendous importance in expanding the work with the extension personnel available.

A survey made toward the end of the year shows that inadequate income lies at the base of many, if not most, of the rural homemakers' problems. It was mentioned twice as many times as any other needs affecting the farm home. With a clear realization of the situation, it is natural that the rural women have taken an active part in the programs designed to improve the economic conditions on the farms of the state.

There has never been a time when sentiment was more friendly toward the home demonstration extension program. The homemakers have a part in building the program, through State and county committees. They know how to ask for help in analyzing their problems and appreciate the opportunity of going to an organization whose help and advice is unprejudiced. Project

demonstrators increase in number each year, and their willingness to give of their talent and time helps materially in expanding the work.

Projects—Full-time specialists assisted the home demonstration agents and homemakers in planning and carrying out definite projects in clothing, foods, nutrition, home furnishing, home management and girls' 4-H club work. Brief summaries of progress in those lines are given later. In addition, other specialists of the Extension Service assisted in their respective lines as they apply to farm home problems and improvement. The specialist in agricultural engineering helped especially in problems pertaining to lighting and use of electricity; the landscape gardening specialist in the improvement of home grounds; the dairy specialist in the care of dairy products; the animal husbandry specialist in cutting and curing meats, the value of different cuts, etc.; and the poultry specialist in obtaining better results from the farm flock.

Cultural Projects—The various activities that might properly be included in this category have accomplished much in developing leadership among the homemakers and bringing about an appreciation of the beautiful. The project was planned and outlined by the State Leader and home demonstration agents. It has brought to homemakers, and to all members of the family, the satisfaction that comes from reading better books, and the greater appreciation of music and art. The leadership developed has had a direct relationship to all other projects. Some of the subjects classed under the cultural project are: The Family Reading Course, Music Appreciation, Recreation, Art Appreciation, and Handicrafts.

The cultural program receiving the greatest commendation during the last year was the study of Maryland writers and their works. This required much research and reference work by the homemakers. Music appreciation is a very definite part of all club work. More county choruses were organized, which made a contribution to the cultural life of the counties. Three music bulletins have been published in the last three years as guides in this project.

Achievement Days—These events continued to be the popular county-wide meetings of the year. It is a gratification to see

how leadership has been developed, and the pride, confidence and interest with which the women take part in the programs. They are excellent demonstrations of what extension work has done in the field of adult education.

The Rural Women's Short Course, which was held in 1939 for the seventeenth consecutive year, exerts an important influence throughout the State for the entire year.

Rural Women's Short Course—This event, which was held at the University in June for the seventeenth consecutive year, is an important factor in home demonstration work throughout the state and through the year. Men, as well as women, realize what the different courses mean to the families represented by either the mother or daughter. The women who attend get a vision of what education means to family life. What they take back to their families from the week at the University cannot be evaluated. It is certain, however, that what they gain in inspiration, vision and self-confidence, and contacts with women from all over the State, serves as a new outlook on life.

Through their reports and demonstrations at their home clubs, the influence of the short course is extended throughout the year.

Work with Negroes

The three Negro home demonstration agents continued to render valuable assistance to the colored people in five counties. Their program was based on the Better Family Living Program,

which emphasizes the importance of food production, conservation, home canning, clothing, sanitation and health. Their Live-at-Home program has done much to help the Negro families through periods when there was little or no work to be done. More and more of the colored people are raising their own food on a yearly basis. When they do this, they have more money available for clothes and other necessities of life. The colored homemakers have their short course, achievement days, rallies and tours.

The program with the colored people differs very little from the general home demonstration program. Negro people are responsive and eager for help. Much more could be done for them if more agents were available.

CLOTHING

THOUSANDS of rural families were helped with their problems in selecting, buying and making clothes, and in caring for their clothing. In that way, they were assisted in their desire to be better dressed with the resources at their command.

The specific program carried out was based on the recommendations of county clothing planning committees, after their members had determined the needs and problems of the families in the several communities. Recognition was given to the fact that the efficiency with which the family clothing problems are handled has a bearing on their mental, physical and economic welfare.

In adjusting the farm spending plan to meet the demands of present-day standards of living, the amount allotted for clothing has been decreased. This has intensified the problems centered around maintaining the standard of dress the family desires. Consequently, there was a demand for definite information pertaining to better use of income through consumer education.

The clothing program provided an opportunity for development of leadership abilities through program planning and project demonstrator activities. There was a more ready response on the part of rural women in regard to serving as 4-H local leaders and project demonstrators. Greater effort was made to adapt demonstration outlines and subject matter to the needs of club members and project leaders.

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During the year, 2,793 families were assisted in their efforts to provide adequate and suitable clothing through the guidance they received from the Extension Service. Members of 4-H clubs to the number of 4,238 made their contribution toward the family goal by improving their skill in making and caring for their own clothes. Wardrobe planning for the whole family was popular with not only girls and women, but with the older 4-H club boys. Achievements in this phase of the project were shown in style revues throughout the year; 97 girls and 17 boys took part in the State 4-H Style Revue.

Notable in the last few years is the improvement in personal appearance, poise, health and self-confidence that has resulted from the grooming and posture phase of the clothing project.

By educating farm families more thoroughly in ways and means of determining the quality of goods and products they buy, they were able to make better use of their money. Development of skill in handling textile fabrics was an economy and a means of making a contribution to the clothing allowance, to the end that the family was better dressed.

FOODS AND NUTRITION

NOTWITHSTANDING the desire of rural women for a constantly broadening program of development, their interest in the basic problems connected with providing suitable foods to maintain the health and well-being of the family continued to increase.

All of the 23 counties participated in some phase of the foods and nutrition program. There was an increase over former years in the number of communities reached, in the number of people served, and in the number of better practices reported, both by adults and 4-H club girls. Records only partially reflect the extent and influence of the work and the number of people served, as only a portion, probably not more than 40 percent, report results. However, records show work in this field was conducted in 445 communities, with 11,944 adults and 3,643 girls participating in 1,456 meetings.

Family Food Supply—The effort of former years to interest rural families in studying and planning more carefully for their yearly food needs was continued. Reports show that 2,533

families worked out their yearly food budgets and then produced and preserved the required amounts of the several classes of foods necessary to provide healthful diets. In addition to being a guide for production, the budget plan has also proved an effective influence in wise spending of money for foods.

Among the records of food activities by rural women reported by the home demonstration agents are: 453,229 quarts of fruits, vegetables and meats and 169,626 other containers, such as preserves, jellies, pickles and relishes; 1,474 families followed recommendations for better storage of their food supply; 2,329 families used timely economic information as a basis for readjusting their family food supply; 733 families budgeted their food expenditures for the year; 1,942 families improved their food buying practices; 3,845 families report serving better balanced meals; 498 mothers followed recommendations for child feeding; and 4-H club girls planned and served 48,036 meals and prepared 75,488 different dishes.

School Lunches—More attention and concentrated effort was given to school lunch problems with both the adult and 4-H groups. Reports show that 329 schools followed recommendations for a hot dish or hot lunch at school, involving 10,755 children; and 2,735 mothers improved the home-packed lunch.

Marketing Helps—A large number of women have added materially to the family income by sale of home and garden products. Assistance was given in the standardization of food products for sale and in helping to keep the food products offered in Homemakers' markets of a high standard.

Aids to Health—The foods and nutrition work was closely coordinated with health problems of the State Department of Health, the Farm security and Social Welfare agencies. The home demonstration agents demonstrated food principles and practices at the various pre-natal clinics, and assisted in other ways. This phase of the work reached many people in poorer circumstances whom it seemed difficult to reach in other ways.

HOME FURNISHING

RESULTS OF work in home furnishing by the specialist and agents were reflected in many ways. It is a type of work in which the greatest progress is not always evident immedi-

ately after the project is offered. It takes time to change habits, make plans for better furnishing of the home, and to develop the skills necessary to bring about some of the changes. At the same time, the improvements made in furnishing have a far-reaching influence upon the family life in the home.

The dominant principle was to help rural families rearrange their home furnishings in such manner as to best serve the needs of the family. Improved selections of furnishings and the application of principles of color and design to furnishings were phases of the program attracting great interest.

Projects in consumer education, use of color, arrangement of small furnishings and accessories, and the continued work in remodeling, refinishing and repairs helped thousands of homemakers develop plans of furnishing, and improve their selection, and arrangement. The use of color brought beauty and attractiveness to many drab homes, and it appealed particularly to the younger members of the families.

As a result of meetings devoted to special training, many women were able to add to their income by refinishing furniture, chair seating, upholstering, and providing slip covers for others in their communities. In addition to the hundreds of slip covers that are made seasonally in neighborhoods for money or as work exchange by women who have attended training meetings, each year a number of women develop and maintain businesses of their own around this service.

Reported savings due to the program amounted to $48,462.00, which represents only the value of skills in refurnishing and repair and money saved through improved selection. It fails to reflect the greater value that is derived from the stimulation and development of members of the families and the resulting social value.

HOME MANAGEMENT

HOMEMAKERS are finding it necessary to deal more and more with business and economic problems as a result of the shift from self-sufficient homes to a situation in which the management of the income is an important factor in determining the standard of living enjoyed.

There must be money available for purchasing foods and articles of clothing that were made in the home some years ago, for

taxes and other fixed expenses of modern days. There is constant pressure for purchasing outside recreation.

The work in home management has helped women in many ways to gain a better understanding of business methods and procedures. They have taken great interest in learning how to better handle money through keeping home accounts, the study of credit, its costs, the study of legal procedures as they affect women, particularly as heirs and guardians. Local lawyers cooperated with local clubs in presenting information and answering questions on laws and legal procedures. Families saw more clearly the desirability of a business partnership between the husband and wife, and sometimes with the children. Bank accounts were made jointly in many cases, wills were made, and family councils were formed.

Homemaking Dignified—Work in this field helped homemakers to appreciate more fully the importance of their job. From an attitude of being "just a homemaker," they were made to realize that their job is one of great responsibility. Helping them to plan their activities so as to have a smooth-running home and "get things done" contributed to that result. A better understanding of the relationship of dress and posture to health and efficiency was a help, also.

Home Cleaning—In order to assist in the ever-present problem of keeping homes clean and orderly, demonstrations were given on cleaning methods, home-made cleaning recipes, and extermination of household pests.

Kitchen Improvement—Efforts in 1939 were concentrated on helping homemakers to make their work-shops more efficient. Demonstrations were given at clubs and the home demonstration agents and home management specialist made visits to homes to help work out plans. These included the arrangement of equipment into work centers, improvement of storage, information on buying both large and small equipment, and refinishing of walls, floors and woodwork. Laundry methods and equipment were presented in several counties.

Extent of Work—Records show that 5,899 women in 278 communities participated in the home management program in 1939. Special attention was given to training local leaders and their

assistance was an important factor for the past year and for expansion of the work in future years.

GIRLS' 4-H CLUBS

PROGRESS made in 4-H club work was brought out more distinctly than in most years because of the meetings held in recognition of the twenty-fifth anniversary of extension work. Usually at such meetings former club girls were present to speak of their early experiences and to express gratitude for what 4-H club training has meant to them in later years.

Homemaking Programs—Each club group planned its own program of activities in accordance with the needs and interests of its members. The largest enrollment was in the clothing project, which gave the girls training in selection, construction and care of clothing, good grooming and buymanship. At least two-thirds of the counties held intensive "Clothing Schools" during the summer months and presented community style revues to parents and friends. The State Style Revue, with 116 entrants, was a production of professional standard. It was given during State Club Week at the University and attended by more than 1,000 people.

The foods program enlisted the second largest enrollment and work in some phases of that project was carried on in every county. Training in such simple demonstrations as making biscuits, muffins and other quick breads appealed especially to the younger girls. More advanced problems in foods and nutrition, such as learning to plan, prepare and serve home meals and to preserve the fruits and vegetables for winter diets, were of dominant interest to the older girls.

In several counties 4-H club girls interested themselves in school lunch demonstrations. Realizing the importance of that program, the teachers cooperated gladly. The most outstanding school lunch program was in Kent county, where all of the schools united in a twelve-month activity, whereby children and parents raised extra vegetables in their gardens and canned them for school use.

Progress in 4-H club work has reached the point where members of clubs are depended upon to take a definite part in serving community meals, usually wearing their 4-H emblems and uniforms. Each advanced foods club served a complete meal to

parents and friends on their Achievement Day. County camps offered an opportunity for practical foods demonstrations.

Nine counties reported work in home furnishing carried on by girls. The club girls studied pictures and framing of pictures for their rooms, arrangement of furniture, and the making of simple articles to use as furnishing accessories.

Other programs in homemaking carried by 4-H club girls included home management, home beautification, conservation, and home gardens.

General Activities—In addition to the programs associated closely with the science and art of home making, 4-H club girls interested themselves in a wide variety of activities that contributed to their general wholesome development.

Maryland representatives at the National 4-H Club Camp in Washington, D. C. From left to right: Mylo S. Downey, Assistant State Boys' Club Agent; Jessie Guard, Garrett county; William Powell, Allegany county; Gertrude Warren, U. S. Department of Agriculture; George Lechlider, Montgomery county: Katherine Uebel, Baltimore county; and, Dorothy Emerson, Girls' Club Leader.

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Camps—Twelve counties held 4-H club camps in 1939. The girls and leaders held planning conferences, so that each camp was a democratic experience, as well as an educational activity. In some of the camps, girls paid part of their fees by bringing fresh fruits and vegetables, and canned goods. In all but one of the camps, the girls had responsibilities in preparation and serving of meals. The crafts programs were unusually well worked out.

Banquets—A 4-H banquet was held in each of twelve counties, providing club members and their leaders with an opportunity to acquaint parents and citizens of the community with the scope and achievements of their 4-H program. Such a semi-annual affair prepares club members to take their place in adult community meetings. They preside and give talks, and there is usually a guest speaker and representatives of the local rural organizations to bring greetings.

Fairs—The exhibits of club members at community, county and state fairs the past season were of high standard and comprised a large number of entries. There were eighteen counties represented by exhibits at the Timonium State Fair.

Local Leaders—The leaders are responsible for some of the finest 4-H club work in the state and without their assistance it would not be possible to assist so large a number of rural youth, nor to expand the work. Training meetings for local leaders were held in eight counties, and agents in every county gave individual help and supplied materials for assistance to the leaders. The new U. S. Department of Agriculture bulletin, "A Guide for Local Leaders," was sent to all leaders and used at all training meetings.

State Club Week—Due largely to more careful planning and organization early in the year, Club Week at the University was pronounced the most successful yet held. Music proved to be a popular feature; an orchestra was formed and played for the Style Revue. A musical pageant, "When Old Songs Were New," was presented on visitors' day.

Senior Councils—Sixteen counties have formed county councils and affiliated with the State 4-H Club Council. The program during the year included many worth while discussions of prob-

lems pertaining to youth and rural life. The members cooperated with extension agents in strengthening 4-H club work in the counties. The State Council held a meeting in January in connection with the State Farm Bureau and another in August during Club Week. It sponsored a trip to the World's Fair in New York in which about 150 persons participated.

BOYS' 4-H CLUB WORK

MANY high points of achievement were reached in the work of Boys' 4-H Clubs in 1939. The enrollment increased to 3,870 and 85.2 percent, or 3,297, completed their projects.

A remarkable showing was made in competitions, a forceful tribute to the high quality of work that is being done by Maryland 4-H boys and girls.

The Maryland 4-H Club dairy demonstration team, which placed first in the eastern division at the National Dairy Show in San Francisco.

The Maryland judging team placed first and the demonstration team placed first in its section at the National Dairy Show in San Francisco. At the world Poultry Congress in Cleveland, the judging team placed first and the demonstration team was rated "excellent" in the Danish system used in that event.

Some of the best herds of dairy cattle in the country are exhibited at the Timonium fair, and club members competing in open classes made a fine showing. A Holstein heifer and a Jersey heifer owned by 4-H club boys were junior champions in their breeds. With 135 animals in the stalls, 4-H club boys showed 25 percent more cattle than in any previous year.

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There were more beef cattle fed and more exhibited at the Timonium Fair and Baltimore Livestock Show; they placed higher, won more money in open classes, and brought top prices at sales.

Not since the early years of club work, when major emphasis and high pork prices sent the swine project to the top, has there been nearly as many pigs shown at the leading livestock shows in the state.

Enrollment—The steady increase in enrollment and completion of projects during the last five years is shown in the following table:

	1935	1936	1937	1938	1939
Members enrolled	2,870	3,195	3,293	3,605	3,870
Members completing projects	2,374	2,689	2,811	3,097	3,297

	Livestock	Dairy	Poultry	Gardens	Crops	Other
Enrollment by projects	970	806	741	532	386	1,029

It is evident that many boys had more than one project, as the 3,870 boys reported 4,464 projects. It is evident, also, that 4-H club work is broadening the work interests of farm youth.

Fairs and Exhibits—While it is recognized that participation in contests of various kinds is by no means the most important aim of 4-H club work, the records made in that line are to an extent a tangible indication of the progress being made. The opportunity for comparing results and for matching ability in various kinds of contests is offered Maryland boys and girls at many shows, exhibits, field days, and the like.

The two larger exhibits are the Timonium Fair and the Baltimore Livestock Show. At the former, 193 members of 4-H boys' clubs participated. Sixteen counties entered teams in the State Dairy Cattle Judging Contest—the oldest annual State contest in 4-H club work. The winning team was from Montgomery county, with Edwin Fry and Robert Stiles ranking first and second. Seven county teams entered the Dairy Demonstration Contest, which was won by the team from Baltimore county.

A team from Frederick county won the Horse Fitting and Showing Contest, which was held for the second year. Through training for and participating in such contests in various parts of the state, a number of 4-H club boys are becoming quite adept in decorating and handling horses in the show ring and are often called to assist other exhibitors.

Through the Maryland State Fair Board, generous awards were provided for 4-H club exhibits. The erection of two dormitories provided more adequately for the health and comfort of club members.

Fifty baby beeves, 31 trios of swine, and 12 trios of lambs were exhibited by Maryland 4-H club members at the Baltimore Livestock Show. Wicomico county won the fourth annual judging contest in competition with teams from twelve other counties.

Probably the most outstanding achievement by Marylanders at the World Poultry Congress was the record made by the 4-H Poultry judging team, which was one of the three teams to place in the coveted Superior Class. This team was composed of Russell Davis, George Gorsuch and Robert Burall. In this contest, they met teams from 28 other states. A poultry production demonstration team was awarded a place in the Excellent Class in competition with teams from 23 other states. This team, composed of John Clarke and George Lechlider, demonstrated proper care of eggs.

Club Week—This event at the University of Maryland has become an established part of the 4-H club program for the year. It gives the delegates and visitors from all counties an opportunity to participate in regular classes and also in leadership, inspirational and recreational activities. Speakers at the assemblies included recognized authorities in various lines of endeavor.

A growing tendency in recent years has been toward the young people assuming more and more responsibility in planning and carrying out certain activities in connection with club week, and thereby gaining valuable training in leadership.

This year, for the second time, the boys participated in the state style revue and they showed a lively interest in good grooming and posture.

Conservation Camp—For the third consecutive year, a 4-H Club Conservation Camp was held in July. The camp site owned by 4-H clubs in Harford county affords an excellent location for training and observation in that line. Financial assistance for the project was provided by Charles L. Horn of the Federal Cartridge Company.

In addition to lectures, talks, demonstrations and motion pictures, the 80 boys enrolled from 14 counties had field work in

forestry, soil conservation, wild life conservation, and human life conservation. A trip was made to the White Hall soil conservation demonstration, where methods of controlling erosion were shown and explained by representatives of the Soil Conservation Service.

Cooperating Agencies—For twenty years, Judge Frank I. Duncan was chairman of the agricultural committee of the Maryland State Bankers' Association. He has been a great friend of rural boys and girls and most helpful to 4-H club work in many ways, especially in bringing their achievements and their needs to the attention of practically all bankers in the state. He resigned as chairman of the agricultural committee and in leaving that field he has the gratitude and affection of thousands of rural youth. His successor, Stewart Brown, is well chosen to lead in that movement.

The sum of $250.00 was voted by the Bankers' Association for 4-H club awards and trips.

A number of agencies rewarded meritorious work of club members by defraying their expense while attending the National 4-H Club Congress. Hardy Randall and Everett Mullinix of Harford county were sent by the Ellicott City Rotary Club; Emanuel Walter of Montgomery county and William Doub of Washington county were financed by the Maryland Bankers' Association; Webster McCartee of Howard county was sent by the Westinghouse Company; Charles Rathell of Talbot county was sent by Thomas E. Wilson & Company; Howard Beavers of Howard county was sent by the Baltimore Livestock Show; and Charles Wright, Thomas Wilson and Morris Twilley were sent as members of the State livestock 4-H judging team.

Older Youth Groups and County Councils—It was demonstrated that organization of county 4-H club councils will increase membership in older youth groups. Enrollment in such groups increased from 640 in 1938 to 962 in 1939. Sixteen counties now have older groups, nearly all meeting once a month.

Delegates and other older youth representatives from 15 counties, together with state and county extension leaders and others interested in 4-H club work, attended the first meeting of the Maryland Council of 4-H Clubs in January. The hope was expressed that most of the counties in the state would form county

councils within the next year. The State Council sponsored a successful trip to the New York World's Fair. County Councils were very active, assisting county agents in many enterprises, such as fairs, tours, camps, banquets, and picnics.

Negro 4-H Club Work

Enrollment of Negro boys in Southern Maryland in 4-H club work suffered considerably because of the period that elapsed between the death of the Negro agent who had served in that area since the beginning of the work and the appointment of his successor. The new agent has started several very good clubs and is doing a fine job with the club members.

The work on the Eastern Shore made good progress and the standards of achievement are raised year by year. The enrollment was 534 and 85.8 percent completed their projects. More than one-fourth of these colored youth raised gardens in the "live-at-home" program, which has been promoted for a number of years, and 216 members had nearly 10,000 chickens.

More than 100 Negro club members attended the camp, or short course, at Princess Anne in July, where the projects, instruction, and all the standards of recreation, as well as discipline, were the best in the eleven years the event has been held.

SOILS AND CROPS

THE growing interest in conservation and better utilization of soils was reflected in the desire of farm owners and operators for assistance in that line. The problems presented were almost as varied as the soils of Maryland, but major attention was centered on five projects, each of which dealt with a subject of great importance in the farming system of a large percentage of farmers.

Home-Grown Feed Production—Obviously, the production of feed is so closely associated with economic feeding of livestock that the two cannot be entirely separated. Consequently, a joint program involving the agronomy, dairy and livestock interests was carefully planned and carried out jointly. To the farmer, it came as one program directed at production of feeds for obtaining efficient results from his livestock.

The program in 1939 was limited to three representative counties, in order to test procedure in conducting the work before expanding it over a wide territory. It was planned tentatively on a three-year basis and the features to be emphasized were production of plenty of quality forage (pasture, hay and silage) and the proper feeding of livestock for efficient production.

A total of 913 enrolled in the three counties. The program was presented by two-day feeding and feed production schools, by a series of illustrated letters giving timely information, by tours, and by farm demonstrations.

The program was sufficiently successful this year to result in eight counties being enrolled voluntarily for 1940. It is the conservative estimate of county agents that more than 3,000 will enroll during the coming year. It appears evident that there is a wonderful opportunity for a well-organized, unified program of this character.

Pasture Improvement—Because of the serious need for improving Maryland pastures, that part of the feed production program was carried to all the counties. Information on the value of pasture, best methods for improvement, and other factors entering into the problem were presented to more than 10,000 farmers. Soil tests and definite recommendations were made in response to more than 200 requests.

Hybrid Corn—Interest in field corn hybrids increases each year, as tests show more hybrids to be superior to local open-pollinated corn.

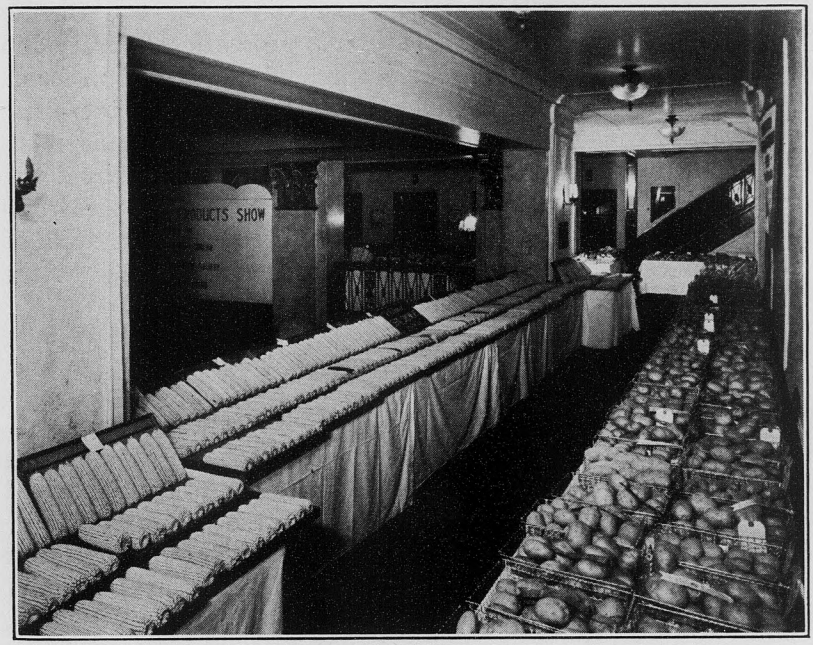
A list of good hybrids was prepared and supplied to county agents for distribution to farmers upon request. Twenty-one hybrid field corn demonstrations were conducted in 18 counties to make comparisons under a wide variety of conditions of hybrids that had shown superiority in Experiment Station tests. Five field meetings proved an effective means for pointing out to growers the characteristics of different hybrids. An exhibit was prepared showing the advantages and disadvantages of hybrid corn and the performance of hybrids in Maryland. It was displayed at the State Corn and Grain Show and was loaned to county agents for display at county and community events.

By the various methods employed, a large number of corn growers were given reliable information that would enable them to proceed intelligently with respect to growing hybrid corn.

Soil Maintenance and Improvement—The most important phase of this program is the soil testing service offered farmers who desire to improve their soils for more efficient crop production. The soil test is only one of the guides in making specific soil fertility recommendations for individual farmers. Besides giving the farmer the information he desires, this service gives the Extension Service and Agronomy Department first-hand information as to the problems in soil fertility in which farmers are interested and makes it possible to better adapt the program to their needs. It is also a means for locating good cooperators for demonstrations.

During the past year, 6,713 samples were tested in the laboratory of the Agronomy Department and recommendations were made by specialists.

Seed Improvement—Seed certification, which is under the extension agronomist in Maryland, is the most important phase



Outstanding display of corn and potatoes at the Farm Products Show in Baltimore. The use of portable cleaning and treating machines is increasing in the state. About 60,000 bushels of small grain, enough to seed about one-tenth of the total acreage, is cleaned and treated annually. Other counties are being encouraged to utilize machines.

The program in 1939 was limited to three representative counties, in order to test procedure in conducting the work before expanding it over a wide territory. It was planned tentatively on a three-year basis and the features to be emphasized were production of plenty of quality forage (pasture, hay and silage) and the proper feeding of livestock for efficient production.

A total of 913 enrolled in the three counties. The program was presented by two-day feeding and feed production schools, by a series of illustrated letters giving timely information, by tours, and by farm demonstrations.

The program was sufficiently successful this year to result in eight counties being enrolled voluntarily for 1940. It is the conservative estimate of county agents that more than 3,000 will enroll during the coming year. It appears evident that there is a wonderful opportunity for a well-organized, unified program of this character.

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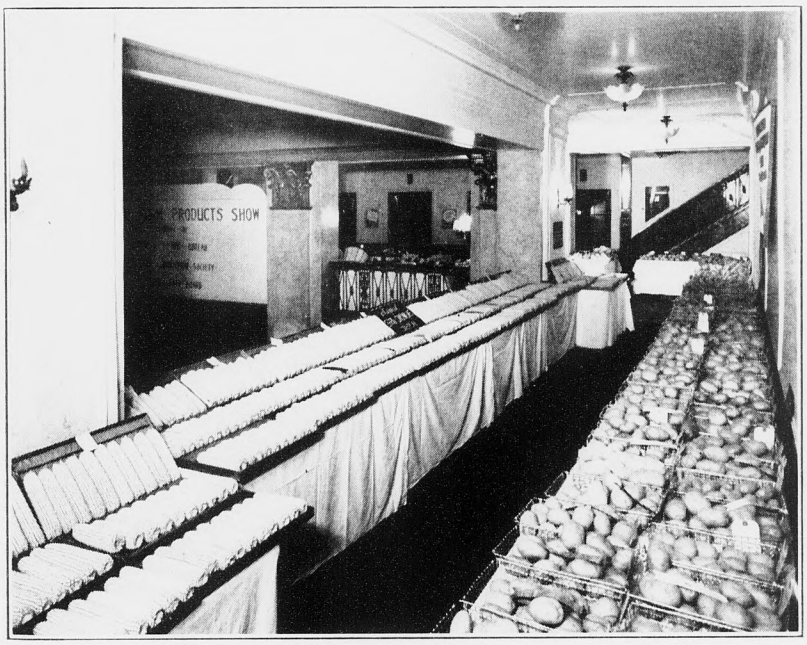

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of the program for improving seeds. The standards for small grains were revised in 1939, and definite standards for certifying soybeans and for giving field inspections for hybrid corn were established. Lists of good seeds and their sources were made available to those desiring that information.

Cooperation in Federal Programs—The extension program is integrated with the conservation programs of other agencies to the extent that they are practically one in many aspects. The AAA program was instrumental in getting more farmers to use lime and fertilizer, and to plant legumes and grasses, which is a part of the home-grown feed program. The formation of a number of soil conservation districts during the year afforded an opportunity to help in the planning of sound conservation programs and emphasizing the importance of good soil conservation practices.

An Extension Soil Conservationist devoted his efforts to activities in cooperation with the Soil Conservation Service. During the year he gave much of his attention to presenting to Maryland farmers in various ways the seriousness of the erosion problem. The success of the work is indicated by the fact that there are now five soil conservation districts organized, comprising more than one-fifth of the land of the state, in which specific programs are being adopted for saving the soil. In organizing these districts and working out the conservation programs, as well as helping to carry them out, the agents and specialists of the Extension Service have a prominent part.

LIVESTOCK

PROGRESS in the livestock program is not easily set forth, as it consists more largely in improved quality than in increased numbers of animals. It is reflected in the increased entries in exhibits of various kinds and by the records made by Maryland animals in competitions. In the case of certain types of livestock, the numbers of high-quality breeding stock brought into the state indicate the advancement that is being made.

Interest and activity on the part of breeders and stockmen themselves have been potent factors in putting the livestock industry on a much more substantial basis than existed a few years ago. Working closely with those engaged in the industry,

the extension agents and specialists have had an important part in helping to develop the industry along sound lines.

Records from the counties show that agents made 1,120 farm visits in connection with beef cattle work; 1,068 with swine work; 352 with horse work; and 439 in connection with sheep work. They assisted a large number of farmers in obtaining purebred sires and purebred or high-quality grade females of each of the different types of livestock. The records show, also, that a large number of farmers used the marketing information and recommendations supplied to them by the extension agents.

Feeding—Greater production and use of home-grown feeds, especially forages, is one of the most important developments in more economical and efficient feeding of livestock. While feeding questions of all kinds received much attention, special efforts were made to encourage production and use of home-grown forages. A joint project between the agronomy, dairy and livestock departments was carried out in three counties. Two-day feeding schools were held in each county and timely letters were sent to each cooperator during the year, relative to feeding and crop or management problems. In each county, a tour was made, visiting demonstrational farms where good livestock feeding methods were practiced and where pastures and legumes were handled properly. The project resulted in many other activities emphasizing the value of increasing forages in the livestock program.

With the cooperation of commission men, packer buyers, livestock salesmen, and dealers, a series of steer feeding and marketing meetings was held in a number of counties and attracted unusual interest.

Horses—Significant of the development in the draft horse industry is the fact that in 1939 Maryland stood tenth among the states in the number of Percheron horses registered. Similar advancement has been made with other breeds. The services of the extension specialist have been in great demand in a wide variety of ways in connection with the growth of the draft horse industry. He was helped especially in selecting and securing breeding animals adapted to the needs of those who desired to improve the quality of their stock, and also by advice and information on sound management practices.

Thirteen horse pulling contests conducted during the year demonstrated much of value to producers and users of draft horses, as well as the general public. In addition to the educational value of such contests, they serve an important function in arousing interest and focusing attention upon high-quality draft horses as efficient sources of farm power.

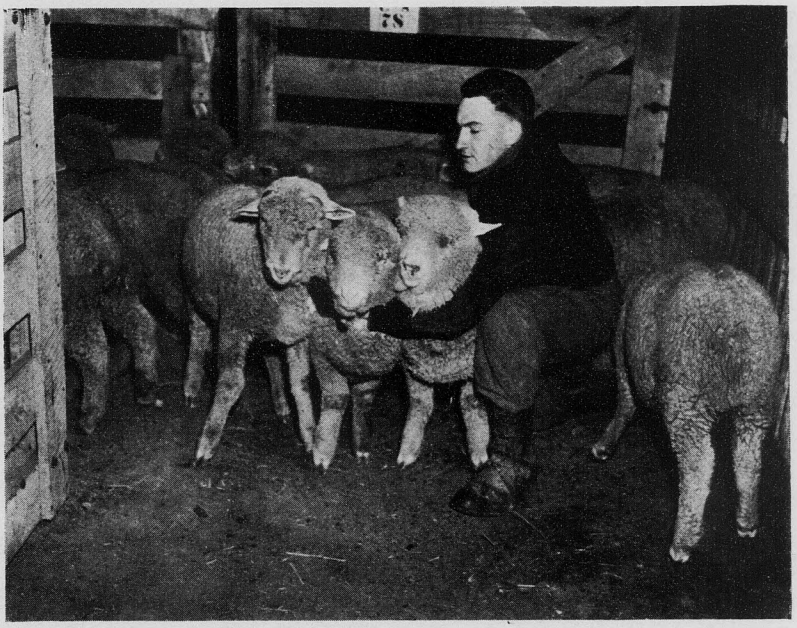
Beef Cattle—Interest in beef cow herds continued to grow and there was an increase in membership of the leading breed associations. The Aberdeen-Angus and Hereford Breeders' Associations each held field days, which proved to be effective educational events in many respects. The extension specialist and agents assisted in arranging and conducting the field days, and also many other exhibits and contests.

Much of the service to the livestock industry is rendered directly to the persons interested, or to comparatively small groups. The many shows, fairs, field days, tours, feeders days, and such events that bring together a number of stockmen and animals of different types, afford excellent opportunities for demonstrations and illustrations.

Swine—A feature of the year in the Maryland livestock industry was the return of interest in hogs. There was substantial increase in the number of hogs raised compared with recent years, and greater activity among breeders. The numbers of hogs exhibited at the several shows were the largest in several years. Assistance was given in the organization of a state swine growers' association, which adopted as its central project a consignment sale, primarily of bred gilts.

Junior Livestock Work—Reference is made to most of the livestock projects carried on by juniors in the section of this report devoted to 4-H Club work. They include baby beef clubs, lamb feeding, swine feeding and breeding, and colt clubs, and constitute a very substantial part of the livestock extension program.

The specialist assisted baby beef club boys in selecting their animals and in getting them started on feed, especially those who were inexperienced. Frequent visits were made by the specialist or agents during the feeding period and practical demonstrations were held on such jobs as clipping heads, trimming feet, curling and showing animals.



A fine sample of the Western lambs which were fattened as one of the livestock 4-H Club projects.

The lamb feeding phase of club work was divided into two parts—feeding of white-faced Western lambs for a period of 120 days during the winter months, and the feeding of a pen of four native lambs in the summer to be shown at the Baltimore Livestock Show. In each of these projects, the boys were given careful supervision and advice in their feeding and management practices. Tours of the demonstrations being made by the boys were conducted, to which adults were invited.

Nearly all counties were included in the swine feeding and breeding projects, which involved a total of 2,245 hogs. The breeding project consisted of one or more purebred sows owned by the club member and kept by him for the purpose of producing pigs. The feeding project consisted of feeding three fat barrows to be exhibited at the Baltimore Livestock Show and later sold at auction. Both projects afforded excellent opportunities for effective educational work in breeding, feeding and management of swine.

In the colt clubs, boys and girls were permitted to raise and care for colts produced on their fathers' farms. Demonstrations

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were given in trimming, fitting and showing of horses, and club members were taught sound methods in care of the mare and foal and the feeding and management of the foal after weaning.

DAIRY

MARYLAND dairymen are so well organized in their breed organizations, milk marketing organizations, and herd improvement organizations that an excellent field is offered for efficient extension work. The same close cooperation and cordial relations that have contributed to rapid advancement of the dairy industry in recent years continued through 1939. As a result of the fine cooperation between all agencies, the dairymen of Maryland have enjoyed a more favorable situation than has existed in many sections of the country where dairying is a prominent industry.

The marketing of Maryland milk has been ably handled by the three cooperative marketing organizations—the Maryland Milk Producers, Inc., the Maryland-Virginia Milk Producers' Association, and the Inter-State Milk Producers' Association. Extension specialists, both in dairy and in allied fields, as well as the agents in the respective counties have rendered assistance on any problems that arose. While none of the problems were as acute as in some years, the prompt handling by trained workers was a valuable service.

As in former years, much of the dairy extension work was focused on improvement in quality, both of dairy stock and products, together with greater efficiency and lower costs of production.

Economic Feeding—For years, the production of home-grown feeds, especially forages, has been recommended as a factor in efficient production of dairy products. A systematic project designed to promote that practice was conducted in three counties, in cooperation with specialists in other lines. By means of timely letters, feeding schools, tours, etc., practical information and advice were brought to dairymen throughout the year in a form and at times that would prove most effective. So successful was the project during the first year that requests have been received for extending it to a number of other counties in the coming year.

Advanced Registry Testing—Two types of official testing were provided for owners of dairy herds and the increased use of this service is evidence of its value to breeders in improving their breeding stock. In one type of testing the owner selected individual cows whose official record of production he desired to obtain, and in the other type the whole herd was placed on test. The approximate number participating in this service was 41 breeders with 521 cows in the Advanced Registry Testing, and 29 breeders with 816 cows in Herd Improvement Testing. There was an increase of 24.1 percent in the number of advanced Registry Records completed in 1939, as compared with 1938. Each of the three breeds—Guernsey, Holstein and Jersey—showed an increase, the total being 90 more records.

By means of a mimeographed publication, all breeders participating in official testing are kept informed of the results as they are obtained and the progress of the tests. In addition, frequent visits were made by the specialist in charge and the supervisors of the work.

Herd Improvement Testing—Fourteen Dairy Herd Improvement Associations functioned during the year. They are cooperative organizations composed of dairymen who desire to obtain sufficient records of their cows to determine those which are profitable producers and those which are not. The Extension Service provided supervision and in other ways assisted these associations. One new association was formed and more than 1,000 cows were added to the number tested. A monthly news letter sent to all members of testing associations served as a means for disseminating timely information regarding efficient feeding and management of the dairy herds. The annual meetings of the associations provided opportunities for discussion of problems pertaining to the dairy industry.

Each year, the work conducted in this field becomes of greater value, not only to those participating directly in the testing, but to all dairymen of the state. The records accumulated through the years form the basis for a more accurate understanding of the dairy situation, and also for planning the most effective service to those who are dependent upon production of dairy products for their income.

Purebred Sires—It was recognized that greater attention to selection of herd sires was necessary to increase average produc-

tion, as well as testing and records, and definite efforts were made to assist dairymen in obtaining better bulls. While a complete record is not available, it is known that through the efforts and assistance of specialists and county agents several hundred bulls were placed.

Breed Associations—Much of the progress in the dairy industry is due to the active and intelligent efforts of associations representing the principal breeds of dairy cattle. Definite programs of field days, sales, tours, exhibits, and other events were planned and to a very large extent were carried out. Detailed records of the progress made in the several breeds are reported by the specialists of the Extension Service. They give evidence of the fact that Maryland has become a source of very best breeding stock and that the state ranks high both in number and quality of dairy animals. Extension workers have had an active part in planning and carrying out the improvement programs.

Dairy Herd Management—Among the new factors which have entered into management of dairy herds in recent years is the interest in use of grass and legume silage. Information regarding harvesting, preserving and feeding silage of that type has been in demand, as well as construction and modification of silos in such manner as to care for the heavier product. Demonstrations in erecting that kind of silo were given and other information was provided.

Educational and demonstrational work on various phases of feeding, breeding, and general management of both the dairy herd and the farm were a part of many of the events described, such as field days, meetings of associations, and exhibits. In addition, hundreds of visits to farms were made by specialists and agents for the purpose of advising with the operator regarding specific problems he was encountering in his dairy enterprise.

Dairy Judging Teams—Outstanding records were made by members of 4-H dairy clubs in national and regional contests. Two teams journeyed to the National Dairy Show in San Francisco. A team composed of three boys and an alternate won first place in judging dairy cattle and a team of two members was awarded highest honors for the Northeastern group of states for its demonstration on quality milk production. The number

of boys participating and the number of animals shown by them at the Timonium Fair showed a decided increase.

There is danger of underestimating the importance of junior activities in the development which has been shown by the dairy industry in recent years. The training of teams for contests is a major activity of extension workers, both specialists and the agents in the respective counties. The comparatively few who eventually become members of teams in competition at large events by no means reflect the true character and value of the work. In the process of developing teams, many boys are stimulated to put forth their very best efforts and are given intensive training in dairy judging and practice. Many fine herds are now owned by men who made their start as club boys, and they are now potent factors in the industry.

The Maryland 4-H Club dairy cattle judging team that won first place in the contest at the National Dairy Show in San Francisco. The team scored 4,056 points out of a possible 4,500 points. From left to right: Robert Stiles, Montgomery county; George Gorsuch, Carroll county; Charles Davis, Harford county; Howard C. Barker, coach: and, Charles Hammond, Baltimore county.

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Bang's Disease—The Livestock Sanitary Service continued its vigorous campaign against Bang's disease. Extension workers cooperated by bringing to dairy farmers information about the disease and the proper steps to take for having their herds tested.

FRUITS

IN ADDITION to the problems encountered more or less regularly by fruit growers in Maryland, extension agents and specialists were called upon in 1939 to advise and assist with some unusual problems. The market situation was more than usually complicated and uncertain, due to the effect of conditions in Europe upon possible exports. A severe storm in the principal apple-producing section of the state in September, which blew about 400,000 bushels from the trees just before harvest time, presented a very serious marketing problem to salvage as much as possible of the fallen fruit.

Production—Among the several measures advocated and demonstrated for a number of years with a view to helping growers reduce costs of production and improve the quality of their product, better care of the soil has assumed increasing prominence. In recent years, the orchard program has been fitted into the programs of soil conservation and erosion control. Some of the leading orchardists who have carried out the conservation practices more extensively are providing fine demonstrations to other fruit growers. The emphasis that extension workers have placed upon better care of the soil for a number of years was reflected in the readiness with which growers adopted some of the newer measures, such as terracing and strip cultivation.

The use of suitable fertilizers, both as a tree application and as a means of promoting better cover crop growth, improving general soil fertility, and supplying possible soil deficiencies, was a part of the soil improvement program.

Other factors entering into economic production were the basis for a large number of demonstrations and assistance in other ways. The use of mulch in the orchard, pruning, spraying, thinning and pollination were demonstrated to a large percentage of commercial fruit growers.

Some of the fine display of fruit during the winter meetings of the Farm Bureau and affiliated societies.

Fruit Bruising—Injury to fruit by bruising at the time of picking and packing showed plainly as a cause of reducing its grade in surveys made in recent years. Growers were spending a lot of money to produce good fruit and then were ruining a large quantity of it by careless harvesting and packing methods. A campaign has been carried out, with the aim of reminding growers of the loss they are suffering, and more important, impressing upon picking and packing crews that bruised fruit is a serious problem that they can help in solving. Along with other measures, a series of signs placed near packing houses proved effective. They read, "Have a Heart—Handle Fruit Carefully," "Bruised Fruit Means Lower Grade," "Banged-Up Fruit Brings Knock-Down Prices." Results were evident in the increased use of pads on various grading machines and inquiries regarding placing and slope of packing bins.

Small Fruits—The demonstrations and tests of new varieties were continued in the principal raspberry and blackberry growing section of the State. Records of performances of the various varieties were made, including three new varieties that fruited this year. Close observation of the disease factor indicates that

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some of the new varieties may be susceptible to disease to the extent that they may not be worthy of recommendation.

A mimeographed news-letter entitled "In the Berry Patch," was mailed to practically all berry growers in Western Maryland at intervals during the year. The work with this group of growers is increasing and is meeting with enthusiastic reception.

Marketing—The Federal Surplus Commodities Corporation rendered substantial assistance by purchasing Maryland apples following the wind storm on September 30. The outbreak of war in Europe and uncertainty as to the export market induced growers of some varieties of apples to turn them into by-product channels to the extent that they were in demand in fresh fruit markets later. On the whole, the marketing angle presents a very difficult problem and affords an opportunity for valuable service in the way of keeping growers informed regarding developments affecting their business.

Maryland continued to cooperate with neighboring states in a campaign of apple advertising designed to increase domestic consumption and encourage the use of apples grown in this region. The extension specialist is Secretary-Treasurer of Appalachian Apples, Inc., for Maryland.

ORNAMENTAL AND VEGETABLE GARDENING

ASSISTANCE in making grounds more attractive varied from comparatively small improvements in the grounds around the home to the preparation of complete plans for landscaping public areas. The demand for assistance of that kind continued to increase and not only the specialists but also the agents in the counties helped in serving those desiring to make improvements in their surroundings.

Work in this line was conducted through organized groups in most counties and in that way a much larger number was reached. While reports of that type are far from complete, records show that some definite improvement was made on their home grounds by 2,653 persons, and that 275 juniors completed their projects for the year.

Flower shows and marts, garden schools and tours, and various method demonstrations were some of the types of activities carried on by the organized groups.

Considerable interest developed in some counties in the establishment of herb gardens, both from the standpoint of ornamental value and their value for use in cooking.

A series of ten circulars setting forth principles for improvement of home grounds proved very effective. Many home owners concentrated on one or two phases of improvement described in the circulars and carried them out successfully.

Information sheets under the name of Ornamental Gardening Notes were sent each month through the year to approximately 1,900 persons. They proved a very popular source of information at just the time it was applicable.

Assistance in Planning—While it was not possible with the force available to prepare complete plans for planting in response to all the requests received, that service was rendered to the extent that facilities permitted. One hundred and seventeen requests for assistance of that kind were received and 75 plans were drawn. Of these, 69 were for home grounds, 25 for school grounds, and the remainder included parks, church grounds, and a number of miscellaneous areas.

Cooperation in Federal Programs—The specialists in ornamental gardening were called upon for substantial assistance in carrying out a number of Federal programs in Maryland. One served as consulting landscape architect for the State Park C. C. C. projects and also was the architect for numerous W. P. A. projects, including school grounds, parks, military posts, and historic restorations. He supervised the Soil Conservation Service exhibit at the National Outdoor Life Show in Baltimore, and formulated plans for integrating certain phases of landscape planning with the land use planning program.

Vegetable Gardening—Because of its relation to the health of the family and the economy with which wholesome meals can be provided, much of the attention in vegetable gardening was devoted to assistance with home gardens. Some counties gave greater attention to that kind of work than others, one county conducting a vegetable garden contest in which 67 gardens were entered. Health officials and the home demonstration agent cooperated with the specialist in carrying out the contest.

Modification of the Agricultural Conservation program so as to make it more favorable for growers of vegetable crops was

an inducement for more care in producing crops of that kind. Acquainting vegetable growers with the provisions of the program and assisting them in adjusting their production in such manner as to profit by those provisions, was a part of the program of extension workers.

Demonstrations in the growing of new varieties of vegetables were continued. This work in cooperation with the Experiment Station is designed to provide vegetable growers with dependable information regarding the merits of new varieties and the desirability of including them in their plantings.

MARKETING

IT IS possible to mention here only some of the services and activities which have been developed rather extensively in response to demands for assistance in marketing the wide variety of products from Maryland farms. It should be recognized, however, that practically all extension activities are planned with a view to marketing as well as production of products.

There is great need for much greater efforts in the field of marketing than could be carried out with resources and facilities available thus far. More efficient merchandizing of the wide variety of farm products grown by Maryland farmers, especially with a view to capitalizing more fully upon the preferred position with respect to large consumer markets, ranks in importance with the fine progress that has been made in the field of economic production. Improvement in the quality of products and assistance to growers in placing their products on the markets in better graded and standardized forms have been primary aims of much work carried on by the Extension Service. The personnel conducting educational activities is so closely integrated with those charged with duties under the State Department of Markets that no sharp line of demarkation can be drawn. The result is that much educational value is derived from work that is fundamentally regulatory and the latter type of work achieves its ends largely through education.

Inspection Service—The Federal-State Inspection Service is maintained for the use and convenience of producers, processors and shippers of raw agricultural products and is available on request. The cost, other than for supervision, is borne by those

receiving the service. Forty-three licensed inspectors were employed temporarily in 1939 for a total of 252 man-weeks, divided as follows: Eastern Shore for inspection of strawberries, potatoes, fresh tomatoes, apples, peaches and sweet potatoes, 71½ weeks; Western Maryland for inspection of apples and peaches, 51½ weeks; for inspection of canning crops throughout the state, 77 weeks; and, for egg inspection, 52 weeks. In addition, full-time employees devoted approximately 76 weeks to actual inspection work.

A total of 1,924 lots of fresh fruits and vegetables was inspected (mostly carlots, some truck-lots). These included 805 lots of apples; 255 lots of strawberries; 540 lots of potatoes; 100 lots of tomatoes; 83 lots of peaches; and 141 lots of sweet potatoes.

In the process of inspection, effective demonstrations were given to growers as to the factors which determine quality and the requirements for established grades. They were advised also as to packages in which their products could be placed upon the market to best advantage.

Inspection of Canning Crops—There was an increase in the tonnage of cannery tomatoes inspected, as compared with the preceding year, although nine canning houses used the service, compared with eleven the year before. Two large canners availed themselves of the service for the first time.

Apparently, there has not been established thus far by the majority of canners a satisfactory scale of differentials in prices between the several grades to serve as an incentive to growers to have their product graded. This is indicated by the fact that, over a period of years, reports show that growers have not profited by marketing their tomatoes on a graded basis, except in some cases. In 1939, 785,480 baskets of cannery tomatoes were inspected.

Cannery corn inspection was carried on at three factories. The inspectors worked in close cooperation with the canners, in order that the proper proportions of different maturities might be used to insure the type of pack desired.

Eggs and Poultry—Egg producers who desired to place their product on the market on the basis of established grades made valuable use of the inspection service. Nearly a million and a

half dozens of eggs were inspected during the year. In cooperation with the Southern States Marketing Cooperative, Federal-State grading stations were operated at three points in the state.

With funds that became available on October 1, definite arrangements were made for carrying out the provisions of the Maryland Fresh Egg Law.

A total of 64,191 pounds of dressed poultry was inspected, including chickens, turkeys and ducks.

Assistance was given the Maryland Turkey Producers' Association in an effort to market their turkeys under a recognized brand. The name "Sho-Nuff" was adopted and grade requirements were established for turkeys sold under that brand name. Turkeys sold by the organization were inspected and those meeting the requirements were tagged "Sho-Nuff" Maryland Turkeys. A ready sale on the market was found for these high-quality birds.

Purchase of Surplus Commodities—At a time in the early fall, when there was practically no market for apples, the Federal Surplus Commodities Corporation put into operation a buying program in which the department of markets of the Extension Service not only inspected all apples bought, but acted as receiving agent for the corporation.

Aside from the monetary value of the program, it enabled that department to make numerous contacts with apple growers, many of whom were not familiar with the U. S. grades. Many grading demonstrations were necessary in order that growers might take advantage of the opportunity for disposing of some of their apples. A total of 306 cars of apples was bought from 56 growers.

Sweet Potato Marketing—So many requests that something be done toward improving conditions in the production and marketing of sweet potatoes were received that a number of special projects were undertaken. They included educational work as to best varieties and methods of culture, and also attention to factors affecting the marketing of Maryland sweet potatoes. Trial shipments of different types were made and a truck load of sweet potatoes was followed to retail markets in New York City. Most of the program was of such character that it could not be completed within the year, but a good beginning

has been made and it is hoped that worth while results will be achieved.

Marketing Associations—Much of the extension work in marketing is conducted in cooperation with organizations of producers that are active in the actual marketing of their respective commodities. Every aid and encouragement has been given to cooperative marketing through the years and there are now a number of organizations which are rendering exceedingly valuable service to their members. The close relationship and contact maintained between the Extension Service and these organizations is of great mutual value. Specialists are ready at all times to provide information necessary to cope with problems encountered by the cooperatives and to assist them in other ways. Likewise, the organizations provide an excellent means for carrying out extension projects in marketing.

No especially acute problems developed among the cooperative marketing organizations during the past year, such as are encountered at times, but quite a wide variety of services were rendered them.

Seed Certification—Provision for official certification of seeds was continued under the Maryland Seed Certification Board. Specialists in the various lines make the necessary inspections and the Department of Markets acts as the certifying agency. Growers may have their seeds officially sealed and certified, if they are found eligible according to specified requirements. Certification provides seed that is of known origin, and also is evidence that the seed has been found free from disease and true to type.

Market News Service—Arrangements were maintained whereby producers could obtain accurate and up-to-the-minute information regarding prices and other conditions on the markets, both by radio and in the daily press.

POULTRY

MARYLAND'S participation in the Seventh World's Poultry Congress at Cleveland, Ohio, on July 28 to August 7 was an outstanding feature of poultry extension activities in 1939. Approximately 500 Maryland poultrymen, 4-H club and F. F. A.

members attended the Congress and 4-H judging and demonstration teams representing the State won many honors in youth activities.

John Clark and George Lechlider of Montgomery county who composed the 4-H Club poultry demonstration team that represented Maryland at the World's Poultry Congress in Cleveland, Ohio.

The Maryland State Exhibit, portraying features of the poultry industry of Maryland, attracted much attention, and Maryland was one of the five states that gave its full quota of financial support to the Congress. An attractive handbook of the Maryland poultry industry was distributed widely, both at the Congress and within the State.

Poultry Day at the University of Maryland, July 26, was attended by 800 poultrymen. Foreign delegates to the World's poultry Congress were present in a body, numbering approximately 125 and representing 39 countries. A feature of the day was the dedication of the new poultry building and poultry plant at the University.

Poultry Products Marketing—Organization of the Westminster Cooperative Poultry and Egg Auction upon a practical basis of operation, and the reorganization of the Maryland Egg Producers' Cooperative at Hyattsville upon a more efficient plan were important accomplishments in the marketing field.

The Second Maryland Poultry Products Marketing School, attended by 75 persons from the Northeastern States, and organization of the Maryland Turkey Marketing project in cooperation with the Maryland Turkey Producers' Association, were also outstanding phases of marketing work.

Breed Improvement—Poultry Improvement Schools at Denton and Westminster in August were attended by 100 poultrymen,

from which 64 qualified as flock-selecting agents to select breeding flocks supplying eggs to hatcheries under auspices of the Maryland Poultry Improvement Board. For the 1939-40 breeding season, 34 hatcheries with more than a million and a quarter egg capacity and approximately 900 breeding flocks with more than 500,000 birds are cooperating with the Maryland Poultry Improvement Board under the State and National Poultry Improvement Plan.

Five hatcheries and breeders with approximately 90 flocks of turkeys totaling over 5,000 breeding birds are cooperating in turkey improvement work. Two turkey breeders are completing the year in Record of Merit Tom breeding work under the tentative National Turkey Improvement Plan.

Four Record of Performance poultry breeders, with 1,250 birds as candidates for R. O. P., are completing the year.

Farm Egg Record Project—Sixty-six cooperators' records for 1938-39 were completed in the Maryland Farm Egg Record Project. Indications from a preliminary survey of the data show continued improvement in management practices, in culling, in egg production, and in mortality.

Organization Work—Close cooperation was given the Maryland State Poultry Council and the county poultry associations in their activities. The 1939 State Poultry Products Show in the Fifth Regiment Armory, Baltimore, on January 10 to 13, 1939, was an outstanding feature sponsored by the State Poultry Council. There were 237 exhibitors with 552 entries of eggs, baby chicks and breeding stock in competition.

ENTOMOLOGY

IN ADDITION to the projects in which extensive insect control programs were carried out, a great deal of assistance was given with more or less miscellaneous problems. People of the state are coming more and more to depend upon the advice and assistance of trained workers in their efforts to reduce the tremendous loss caused annually by insect pests.

Fruit Insects—The Maryland spray service to fruit growers has been operating since 1926 and efforts are made each year to make it more simple and efficient. It has reached the point

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Fruit Insects—The Maryland spray service to fruit growers has been operating since 1926 and efforts are made each year to make it more simple and efficient. It has reached the point

where it is an invaluable service to growers and is used by practically all of them. Spray calendars were sent to all apple and peach growers in the state. They were supplemented by spray cards containing pertinent information regarding each spray, which were mailed to growers by county agents when notified to release them. By this method, it was possible to have each card in the hands of the grower within 24 hours after an insect peak of activity or disease infection had been observed.

Fruit growers were assisted in many ways. Each year a survey is made of the main varieties in the principal commercial orchards to determine just what is being accomplished from year to year in the control of insects and diseases. These results are analyzed for each orchard and sent to the grower with suggestions to fit his particular case.

The pre-harvest sample method of keeping fruit growers posted on their arsenate and lead residue was continued in cooperation with the Department of Markets. Maryland growers feel that this service must be maintained and increased in scope and facilities.

Pests of Canning and Truck Crops—Large-scale pea aphid demonstrations have been conducted in Maryland for the last nine years and substantial progress has been made in dealing with that pest. Pea growers were furnished information regarding the possibility of an outbreak of pea aphids and the most up-to-date methods for control far enough in advance of actual spray dates to enable them to be prepared to combat the pest at a moment's notice. Ninety percent of the growers heed this service.

As the result of work in former years, growers are familiar with the habits of the Mexican bean beetle and know the type of machinery to use in its control. They are kept informed as to the proper material to use, especially with respect to any new materials that prove effective.

The corn ear worm proved very destructive to string beans and lima beans during the year. Considerable progress was made in developing methods of control and demonstrating them to growers, but further work in that line will be carried on, if there is a recurrence of that pest.

The fact that a large acreage of broccoli was grown for commercial freezing presented a number of insect control problems.

Demonstrations and observations during 1939 will make possible more specific recommendations to broccoli growers in 1940.

The tomato or tobacco horn worm, corn ear worm, and the Colorado potato bug are the most common insects with which tomato growers have to contend. Control of these pests can be accomplished with arsenicals, but they are not desirable because of the poisonous residue. Attempts were made to develop methods of control that are free from the objection to arsenicals, and to inform growers regarding the use of such methods.

Pests of Field Crops—The cooperative program for control of insect pests and diseases of potatoes was continued. Various insecticides and fungicides were tested and also the resistance of certain varieties of potatoes to insects and diseases.

Information as to the seasonal distribution of the tobacco horn worm moths was obtained by the use of traps. While there are no data to show that horn worm moth traps are effective in reducing injury by the insect, every grower who has used traps is convinced that they help to reduce worm injury.

The strawberry weevil caused serious loss to growers in some sections of the Eastern Shore in 1938. An educational campaign was conducted during the past year to bring the latest developments in strawberry insect control before the growers.

Recommendations for safe planting dates to avoid injury from Hessian fly were made, based upon results of surveys to determine the infestation.

Japanese Beetle Control—This is by far the most important extension endeavor in entomology in Maryland. Efforts are directed toward reduction of the population of beetles in the heavily infested and lightly infested areas, and the prevention of spread from the heavily infested areas into lightly infested and uninfested areas of the state.

This is being accomplished through large scale demonstrations in trapping. Approximately 100,000 traps were in use in the state for these purposes. Supplementing the trapping, demonstrations were held in soil treatment with arsenate of lead, spraying trees and shrubs, dusting corn and asparagus, changing planting dates to avoid injury to corn, adjustment of agricultural practices, and the utilization of biological control methods, which include parasite colonization, nematode use, and, be-

A scene on a Japanese beetle tour. Dr. G. S. Langford and S. H. Crosthwait pour a few more quarts of beetles on a pile that already contains 1,035 quarts.

ginning in November, the large scale production of a spore-forming bacteria that attacks the grub for soil treatment in the 2,000 square miles of heavily infested areas.

There were 152 demonstrations held; 2 tours, participated in by approximately 250 farmers, business men, legislators and county agents; 121 lectures delivered; 7,000 pieces of printed and mimeographed literature in regard to the Japanese beetle distributed; 2,833 personal letters mailed; and 15 exhibits were staged.

The Japanese beetle project is outstanding not only in results but because of the universal cooperation obtained in achieving the objectives. Federal, State, County, Municipal governmental agencies, commodity organizations, the Farm Bureau, the State Grange, and individuals have cooperated in the actual work, in contribution of funds, and in the education of the general public as to the pertinent life history of the insect and the objectives of the retardation program.

Miscellaneous Insect Pests—Each year there is a growing demand for information concerning control of a wide variety of insects. In the spring there is a steady stream of requests in regard to termite control. The control of ants in houses and on golf greens is the subject of many requests. Household pests, such as bedbugs, carpet beetles, silverfish, psocids, powder post beetles, old-house beetles and roaches, are subjects of much correspondence. Each year there are calls in regard to fumigating granaries for control of insects of stored grain.

The growth of garden clubs and corresponding increased interest in flower gardens are responsible for many more inquiries in that line. A new bulletin, "Common Insects of Lawns, Ornamental Shrubs and Shade Trees," published during the year, has filled a long-felt need for specific information.

APICULTURE

THE year 1939 marked the advent of two new services. Funds became available for inauguration of an Apiary Inspection Service on October 1, the purpose of which is to eradicate American Foulbrood, a serious disease of bees. The second service concerned fruit and truck growers, as well as beekeepers. Its aim is to bring together fruit and truck crop growers needing pollination colonies and beekeepers desiring to rent their bees.

In other respects, apicultural extension work followed closely the educational pattern carefully designed and pursued in previous years. Major efforts were devoted to educational activities, especially demonstrations, in the fundamentals of apiary management.

Apiary Inspection—An inspection of 333 colonies of bees in 21 apiaries showed 26 colonies in five apiaries to be diseased. As a preliminary to placing this service on a state-wide basis, a school was conducted for prospective inspectors.

As a means of educating beekeepers on the diagnosis of bee diseases, nine bee clinics were held at which more than 600 beekeepers received actual personal instruction in diagnosis.

Pollination—A service was organized whereby the extension specialist acted as intermediary between fruit growers and beekeepers. The object of this service was to place rental colonies for beekeepers; secure colonies for orchardists; inspect colonies

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for strength, so that only colonies of adequate strength were moved into orchards; and build up a file of orchardists and their pollination needs and beekeepers desiring to enter this field.

Honey Marketing—Much of the work in this line was accomplished through exhibits. Honey was brought to the attention of many thousands of consumers and beekeepers were given an opportunity to compare their products and methods of packaging with those of others. It was possible, also, to emphasize the uses and virtues of honey. Progress was made in extending the use of the standard Maryland honey and wax premium list.

PLANT DISEASES

DURING 1939, members of the Extension staff addressed 50 meetings, identified 253 specimens, conducted 113 adult and 20 4-H club demonstrations, made 335 visits to demonstrations, 146 visits to farms and homes, and 48 visits to county agents.

Canning Crop Diseases—In cooperation with seed organizations and dealers, the Extension Service is making a determined effort to control anthracnose and blight of beans through the use of Western-grown seed. Pea growers are effectively controlling Fusarium wilt by use of resistant varieties, and decreasing injury from root rot by adoption of proper rotations and better soil drainage. Tomato growers were assisted in controlling collar rot by use of inspected Southern-grown plants. Use of disease-resistant varieties, seed treatment, seed bed sanitation, seed bed spraying and crop rotation were methods demonstrated for controlling other diseases of tomatoes.

Fruit Diseases—A spray service, which has been operated for a number of years, is utilized quite generally by fruit growers. By means of radio broadcasts from stations in Salisbury, Frederick, Hagerstown and Cumberland, they were advised as to the proper time to apply the first and most important spray for scab. Demonstrations were held, also, especially with a view to reducing fruit russet to a minimum. A new peach virus disease, red suture, was observed this year.

Potato Diseases—The value of planting certified seed for the production of table stock and the planting of potatoes in tuber units, together with thorough roguing was demonstrated as a

method of controlling disease and obtaining higher yields and better quality. A new variety, recently named Sequoia, outyielded the Dakota Red, commonly grown for a late crop, in demonstrations.

Strawberry Diseases—Red stele and crimp have become destructive in strawberry fields during recent years. An educational and demonstration campaign was conducted to acquaint growers with the symptoms and methods of control of these diseases. A system of inspection was inaugurated and effective control is being obtained by using plants only from disease-free fields.

Tobacco Diseases—Effective methods have been developed for controlling the most destructive diseases of tobacco and growers were helped in putting them into use. Wildfire can be controlled by a sufficient number of sprays at proper times with Bordeaux mixture. Proper use of cottonseed oil-red copper oxide spray, the use of benzol gas in seed beds, and paradichlorobenzene controlled blue mold.

Miscellaneous Disease Control—Sweet potato growers were assisted in reducing losses from black rot, stem rot, storage rots and other diseases. They were supplied information on the location of disease-free seed, seed treatment, seedbed sanitation, plant treatment, crop rotation, and storage house management. Spraying and dusting demonstrations for control of cantaloupe diseases and insects were conducted on the Eastern Shore, comparing the effectiveness of the two methods and different materials. Disease surveys were made of black and red raspberry plantings in Maryland, followed by field meetings and demonstrations in control of anthracnose, spur-blight, cane blight and other diseases. Growers were taught to identify the various virus diseases and the proper roguing for their control.

FORESTRY

ALL FORESTRY activities have as their objective the successful establishment, growth, harvesting, and marketing of a timber crop.

Actual records of the Extension Forester show that 375 acres of land in Maryland was successfully planted to forest trees in 1939, 79 acres of young timber was thinned, and 369 acres of

mature timber was cut according to the best known forestry principles and the timber thereon sold at higher than average stumpage values. Many more acres of young timber were successfully thinned than these figures indicate, as many people carry on forestry practices of which no record reaches the Extension Forester. The same is true also of harvesting and marketing timber.

In addition to the Extension Service, other agencies promoting forestry activities were the Civilian Conservation Corps, the Soil Conservation Service, the State Department of Forestry, and the Agricultural Conservation Program. The influence of these agencies is widespread and each contributed to sound forestry practice throughout the State.

Broadened Program—The trend in forestry activities runs definitely toward improvement of living conditions in rural areas. No longer is emphasis placed on a particular phase of forestry applied indiscriminately. That type of program is being replaced by others which include a broad approach to the whole subject and bring to bear a concentrated attack by all branches of forestry on the problem within a particular community.

Efforts along the lines described are the Worcester County Woodland Owners' Association and the Norris-Doxey Farm Forestry Project. The former consists of an attempt to encourage the cutting of timber on 30,000 acres of private woodland in northwestern Worcester county along the lines of sound forestry practice and the marketing of the forest products cut from these lands through a woodland owner-controlled association. Preliminary studies to determine the volume of timber that can be cut annually are three-fourths completed.

A project under the Norris-Doxey Farm Forestry Act aims to accomplish the same ends, and, in addition, endeavors to integrate agriculture and forestry through application of complete farm plans, including the woodland. Under this Act, a State plan was completed and an area in Harford county was selected tentatively for the purpose of carrying out the demonstration.

CANNING CROPS

EXTENSION WORK with canning crops is carried on in close cooperation with those engaged in the industry and the major portion is of a rather long-time character. While there are

immediate problems to be dealt with each year, a program is carried on through the years that is designed to improve the quality of product and reduce the cost of production.

Soil Improvement—An especial effort has been made to help growers of canning crops devise methods whereby they can maintain the organic content of their soils, in view of the lack of manure that was used for that purpose some years ago. To that end, the growing of green manure crops in rotation with canning crops, together with the use of commercial fertilizers, was demonstrated. It was shown that certain of the green manure treatments gave yields of peas not appreciably different from the plots on which manure was used, in spite of the fact that yields of all plots were low because of hot, dry weather at harvest time. Similar demonstrations were made with lima beans and tomatoes in rotations.

With a view to helping growers to utilize their fertilizers most efficiently, extension workers have been giving special attention to the advantages of different methods of placement. Band placement of fertilizers has either given higher yields or proved more economical with a large number of crops, including several of the canning crops. The number of band-placement machines in the state is increasing, and the results, in general, have been satisfactory. Demonstrations were made with fertilizers placed in various ways, as well as with the use of different fertilizers.

Variety Demonstrations—In general, the varieties of canning crops suited to Maryland conditions have in past years been of lower quality than those which could be grown in some other sections. Plant breeders have developed a number of varieties of some crops which are considerably better in quality and yield satisfactorily in this area. Demonstration of the merits of these improved varieties to growers of canning crops has been an important part of the extension program. Included in this phase of the work were a carefully conducted demonstration of the most promising varieties of sweet peas for this section, about 40 field trials of a new strain of Marglobe tomatoes, and a variety and strain trial of lima beans.

Pea Grading—Based on the work of previous years, further efforts were made to determine the best available means of buying raw peas on a basis of grades. A number of canners

bought their peas on a graded basis, using methods for determining quality that had been developed in former years and were assisted by extension specialists in arranging their grade classifications and price schedules.

Control of Insects and Diseases—Many calls were received for assistance in controlling diseases and insect pests of canning crops. The pea aphis was again a major factor in pea production in 1939 and has been consistently bad during the last four or five seasons. Most canners are now equipped with either sprayers or dusters for fighting that insect. The time and rate of applications were given greatest attention by extension workers.

Weather conditions were favorable for collar rot of tomatoes and a number of growers disked up their first planting and reset. Leaf blights were not as bad as usual. Spraying and dusting with some of the insoluble copper compounds have shown such promise that some canners are planning to try them on a small scale next year.

Demonstrations in controlling the Colorado potato beetle on tomatoes with rotenone dusts were so favorable that a number of growers are using that material in place of arsenate of lime.

Tomato Seed Improvement—Since the beginning of extension work with canning crops, tomato seed improvement and stock seed saving have been a function of the specialist. Work in this line was requested by the canners' association years ago, when the quality of the tomato seed sold in the state was exceedingly poor.

Selection work was carried out during the past season with two strains of Marglobe and one of Rutgers, and stock seed was saved for the Tri-State Packers' Association for its commercial acreage. Selections from a cross of Marglobe and Brown's Special look good as a canning type at this stage, but several years' work will be necessary before they are ready for field trials.

Ten-Ton Tomato Club—This contest was conducted for the twelfth consecutive year, with 242 growers enrolled, an increase of 51 over last year. Ten counties were represented. The contest was divided into two groups dependent upon the acreage grown, with five acres as the dividing line.

Twenty-five growers made the ten or more tons to the acre necessary for membership in the Club. All of the growers qualifying received certificates of membership in the Ten-Ton Club, and the two growers making the highest yields in each group were awarded gold watches and a trip to the annual canning crops school at the University of Maryland. Percy Shortall of Easton, winner in the small acreage group, made the largest yield ever obtained in the Club—17.735 tons to the acre on 2.542 acres. Winner of second place in that group was Wade Perkins of Forrest Hill. The winners of first and second places in the large acreage group were John F. Kolk of Long Green, and Dudley Baynard of Trappe, respectively.

Without question, the carrying out of this contest through a series of a dozen years has been a strong stimulant to interest in improved methods of production and a potent influence in raising the quality of products.

TOBACCO

REGARDLESS of profits or losses and other factors connected with production of tobacco, it has been the principal source of income for Southern Maryland farmers since the early part of the Seventeenth Century, and the growers are still dependent upon the crop for a livelihood.

The acreage devoted to the crop has remained constant during the last four or five years and the extension program has been focused principally upon efforts designed to help growers increase their net income. With the change in conditions through the year, there have come many problems in production and marketing of the crop.

Better Varieties—Progress is made each year, but it is still the practice of many growers to use strains or hybrids of tobacco that are of unknown origin and that produce low yields of inferior quality. Demonstrations with improved varieties by 35 growers showed that the leading varieties returned approximately $23.00 more per acre than those of unknown strain. This work spreads from farm to farm and should be continued until practically all growers are using the most economical variety for their particular farms.

Seed Improvement—Closely allied with the adoption of better varieties is the use of seed of known quality. In cooperation with the State Seed Laboratory, a service was provided to growers whereby their seed was cleaned and tested for germination. It is difficult to place a value on that service, but it was evident that thousands of dollars were realized by sowing seed with known and satisfactory germination.

Weed Prevention in Seedbeds—Demonstrations were conducted in an effort to find a more satisfactory method for preventing growth of weeds and grasses in seedbeds. Applications of calcium cyanamid gave promise in former years and was given further trials. A number of farms are using that material on their own initiative and the majority of them are getting fairly satisfactory results. Several problems require further practical tests before the method can be considered complete and other demonstrations will be carried out.

Disease Control—Funds were appropriated by the 1939 Legislature for conducting tobacco disease control work. These funds did not become available until October 1, but an assistant plant pathologist has been employed and much more work in that line is planned than was possible in the past.

Wildfire is apparently on the wane, but blue mold was as bad in 1939 as in any previous year. A spray schedule was worked out and growers were impressed with the necessity of spraying regularly and thoroughly. It is gratifying to report that those who followed the spray schedule obtained good results.

Increased Yield of Quality Tobacco—A substantial beginning has been made with a type of service that tobacco growers have desired for many years. By means of soil analysis and information regarding the past history of the soil, the specialist is able to make definite recommendations for improved treatment of tobacco fields in order to grow a finer quality of tobacco. It is a far-reaching service and frequently leads to better crop rotations, soil improvement programs, and better farm management. In 1939, recommendations were made for 543 fields, based on as many soil tests.

Marketing—There was considerable agitation among growers during the year with respect to systems of marketing Maryland tobacco. For the first time, a portion of the crop was sold by

the auction floor or loose-leaf method. Extension workers continued to cooperate with the Maryland Tobacco Growers' Association and assist in dealing with the problems encountered by that organization. They also provided growers with information regarding the different systems of marketing.

AGRICULTURAL ENGINEERING

EXTENSION work in the field of Agricultural Engineering was centered primarily in five lines: Rural Electrification, Farm Structures, Drainage, Home Utilities (water, light, heat, sanitation), and 4-H Club Work in Rural Electrification and Farm Mechanics.

Rural Electrification—Splendid progress has been made in the last ten years in extending the benefits of electricity to farms and rural homes and now approximately 40 percent of the occupied farms have service. It is the opinion of the specialists, however, that less than half of them are carrying out productive uses of electricity in their farming operations. It has been the aim, therefore, to educate those to whom electricity is available as to its efficient and economical use, as well as encourage the extension of service to others who are not yet within its reach.

The Rural Electrification Administration has loaned Maryland cooperatives in the last three years $748,000 to serve 541 miles of line. Approximately 1,350 members are connected and there is a total of 1,721 members along these lines, should all of them be connected.

Demonstrations in productive uses of electricity are essential if people are to make complete and efficient use of the service placed at their disposal. Only a beginning was made during the year and work in that line should be carried out on a large scale in the immediate future.

County and home demonstration agents gave many days to farmer meetings and demonstrations and to planning and assisting local groups with their problems. Reports show 232 days given by farm leaders to organization and planning with regard to getting electric lines into unserved communities.

All the electricians in the area of a cooperative on the Eastern Shore were invited to attend farm wiring and lighting demonstrations. It was the feeling that much more was accomplished

by having the electricians attend than if five times the number of rural people attended and the electricians did not. This will be an important phase of the demonstration work for the coming year.

Since rural electrification is now affecting more than one-half of the rural people of Maryland, the demand for information in that field, both from adults and juniors, is increasing rapidly and every effort is being made to meet the greater demand to the extent that resources permit.

Farm Structures—The foundation of work in farm structures is the farm building plan service. It has been in operation for many years, but was completely reorganized in 1937. At that time, the U. S. Department of Agriculture issued a publication, "Plans of Farm Buildings for Northeastern States," which illustrates 117 designs for farm buildings, equipment and construction details. A supplement to that publication was prepared, containing certain plans which had proved popular in Maryland and were not included in the Plan Book.

Negatives of all designs shown in the Plan Book and the Supplement, and blue prints made from them, are kept on hand in the office of the project specialist, so that requests for plans can be filled promptly.

During 1939, in response to specific requests, a total of 340 blue print plans was sent to 192 individuals.

A large file of plans is maintained and in case none of the stock plans fits the particular needs of a farmer, a suitable plan can frequently be found.

An outstanding result of the building plan service has been the marked tendency toward standardization in design, particularly in dairy structures. This has resulted in economies of construction and the elimination in large measure of disputes between farmers and health inspectors regarding details of dairy barn and milk house design.

Drainage—Most of the work in this line was in connection with CCC Drainage Camps located near Goldsboro, Vienna, and Westover, on the Southern Eastern Shore. A very gratifying feature of the program was the financial support given in order that the work might proceed more rapidly. A state appropriation of $30,000 and appropriations of $10,000 each by Worcester

and Wicomico Counties made it possible to prosecute drainage operations much more vigorously. Other counties provided equipment and operators. On January 1, 1940, a full-time specialist in drainage engineering is being employed.

During 1939, the camps cleared 2,374,692 square yards of ditch banks and channels, excavated 708,762 cubic yards of material, and leveled 167,143 cubic yards of spoil banks.

Assistance was given to farmers in tile drainage problems. Preliminary surveys were made and estimates of cost supplied. To the extent that time and facilities permitted, detailed surveys were made, tile lines staked out, grades and cuts calculated, and instruction given in proper methods of digging trenches and laying tile.

Junior Work—A total of 200 club boys took part in the program. There were 9 machines or pieces of equipment repaired, 438 different articles made, and 266 pieces of equipment installed. Three counties qualified for national competition in rural electrification and the boy who stood highest in the state placed second in the eastern region.

Webster McCartee of Howard county, who was awarded first place in Maryland and second place in the eastern division in the Rural Electrification contest held under the auspices of the Extension Service and the Westinghouse Company.

A list of 27 rural electrification projects was prepared and distributed to both county agents and vocational instructors. Material is being prepared, demonstration equipment has been and is being built, and a program is being arranged for demonstration schools for assistant county agents and 4-H club leaders.

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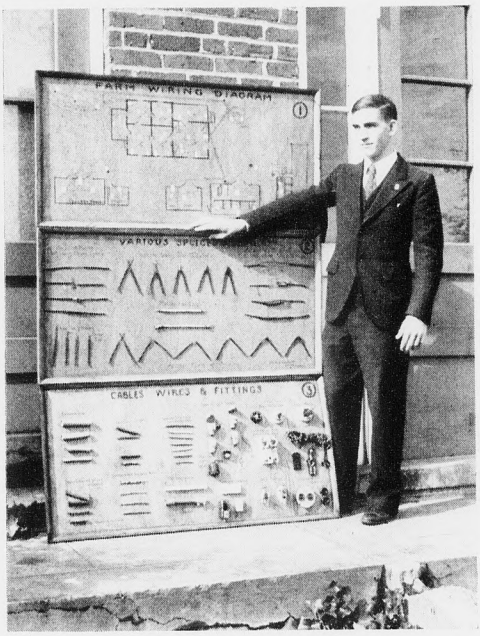

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Home Utilities—Improvement of Maryland homes, especially the kitchens, along with sanitary facilities, is an essential piece of work. The specialists in agricultural engineering worked closely with the home demonstration agents in their programs of kitchen modernization, as well as in improvement of the entire home, including heating, plumbing, water systems, and waste disposal. It is not possible to draw a distinct line between the activities of home utilities and those in the field of rural electrification, home management and home furnishing. Although the results cannot be as definitely measured as in some other phases of the work, it is known that the service rendered in helping farm homes to provide better utilities was of definite value to a large number of families.

ECONOMICS AND FARM MANAGEMENT

MOST ALL of the activities of the Extension Service are related more or less directly to economical and efficient management of the farm and its resources. Consequently, it is not possible to differentiate strictly between the work of specialists and agents in the field of farm economics and farm management and the work they are doing in many lines. Obviously sufficiently adequate records to enable the farm family to plan intelligently are essential to the formulation of sound plans of management, and farm record keeping has been a major phase of the work of specialists in that field.

There are many other phases of extension economics, however, in which assistance has been provided. They include: (1) Dissemination of price and outlook information; (2) Making and supervision of economic surveys; (3) Training in the use of credit; (4) Aid in making farm plans and budgeting future farm operations; (5) Market surveys; (6) Studies of cooperative organizations; (7) Study and advice on property taxation; and (8) more close coordination of farm and home economics.

Farm Accounts—A new record book for the use of farm families was issued in the fall of 1939. It was made to combine the farm and home accounts, so as to give a better financial picture of the entire farm enterprise.

With the new Farm and Home Record Book issued by the Extension Service, the family joins in keeping accounts.

The ultimate objective in farm record keeping is to gradually increase the number of farmers participating until a large percentage keep adequate records of their operations. It has not been the aim to increase the number faster than could be done and at the same time give the service and assistance necessary to place record keeping on a sound basis. By means of personal visits, the beginners are helped to keep their accounts during the first year and are given limited assistance in future years. The record books of those completing their records are analyzed at the end of the year and the cooperators are given a copy of the analysis.

In 1939, there were 186 records started and 116 completed. The farmers who completed records in 1938 were sent summaries and comparisons of their farms with others of the same type. Suggestions were made to each farmer whereby weaknesses in the farm set-up could be corrected. The economic value was immeasurable.

Some of the most effective work done in farm record keeping was carried on by 4-H club members. The benefits are many, both from the standpoint of development of sound farm record keeping and from the training and education given the boys and girls.

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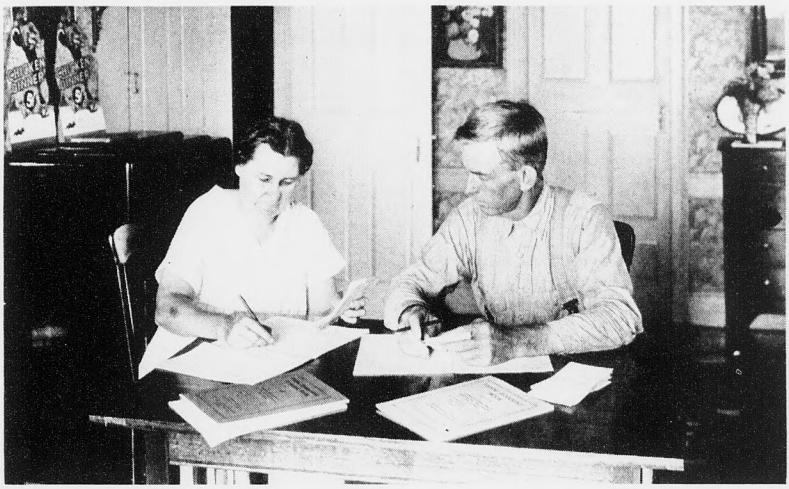

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One Maryland boy was awarded $100 for placing fifth in a national competition and others made very fine records.

Farm Management—In addition to the assistance and information on basic principles of farm management given to groups in one way or another, many requests were received for specific help in organizing or reorganizing the farm management systems to meet changing conditions. Suggestions were made on how to improve the farm, both physically and financially. Basic facts for such suggestions are continually being obtained from surveys made by those engaged in research and the information is disseminated in popular, practical form to those who can profit from it.

RURAL SOCIOLOGY

THE EXTENSION work in rural sociology was closely correlated with the land use planning program, the specialist devoting approximately one-half of his time to each phase of work.

It was the aim to assist all rural organizations desiring assistance, such as the Farm Bureau, Grange, Parent Teacher Associations, and rural churches, with ways and means for making their organizations more effective. Also, to counsel with leaders in rural communities on matters pertaining to community organization.

Material designed to strengthen the programs of rural organizations was supplied and the same aim was achieved by conferences with leaders. Using one Grange as a demonstration, a yearly program was planned and executed which became the basis for a State Grange Achievement Contest that is in use by all Granges.

Group and Panel Discussions—There is nothing new nor phenomenal about group discussion, and yet it is being used by increasingly large numbers in rural Maryland each year. Demonstrations were conducted in group and panel discussion techniques as methods of extension teaching. Assistance was given the Farm Bureau in establishing and maintaining 72 discussion circles in the counties. Demonstrations were given also in subordinate granges and to 4-H club councils. Subject matter was supplied for use in group discussions. As a result, it is evident

that many rural groups are learning how to discuss an issue and arrive at a concensus of opinion with little lost motion and side play.

Development of Leadership—The leadership situation in the counties is such that responsibilities are pyramided on the shoulders of a few who are overworked, while potential leaders receive but little training and stimulus in accepting and discharging leadership responsibilities. A definite program of work was carried out with a view to relieving that situation.

GENERAL ADULT EDUCATION

THE PROGRAM of the Extension Service is broadened each year to some extent in response to the desire and requests for help in phases of adult education that are not strictly allied with agriculture and home-making. It has been possible to conduct a limited amount of work in a few of the so-called cultural subjects, principally in connection with other extension programs.

Aside from the activities carried on by a few part-time specialists, with the help of the agents in the counties, there is no specific force for conducting programs in general adult education. In the course of a year, however, a great deal of assistance is rendered in various ways, such as helping to provide speakers and other talent for local affairs, as well as in planning for educational activities in the several communities.

It has not been possible to extend the adult educational program to other than rural people and there still remains the great, unsatisfied need for activities designed to help the many thousands of adults engaged in other pursuits who desire to continue their development by carrying on more or less systematic courses of study or training. It is hoped that facilities may be provided in the near future for meeting this very evident need and desire of the people of the state.

MARYLAND CROP ESTIMATES

BY A cooperative arrangement between the Maryland Extension Service and the Division of Crop Estimates of the U. S. Department of Agriculture, trained statisticians are stationed at the University of Maryland for the purpose of making periodic estimates and reports on the acreages, yields, condition

of growing crops, numbers of livestock, and other important phases of agriculture within the state. It is a pleasure to express appreciation of the capable work done and fine cooperation rendered by C. E. Burkhead, chief statistician, and his associates.

The need for definite information of this character is increasing constantly and is essential to intelligent operation of many of the extension programs. The force available thus far has not made it possible to obtain reliable estimates by counties and each year there are many times when such information is needed very badly. It is hoped that the crop estimates work may be extended in the near future to include estimates by counties, as well as to include data on a number of phases of production and marketing that have not yet been included.

STATE HORTICULTURAL DEPARTMENT

THE STATE Horticultural Department has been very closely coordinated with the Extension Service for many years by virtue of the fact that both function under direction of the Director of Extension. The work of the former agency is concerned with control and inspection features, but the fact that to a large extent the same personnel operates in both capacities makes it possible to incorporate much educational work with control duties. From the standpoint of economy and efficiency, the arrangement has proved exceptionally satisfactory.

The State Entomologist and State Plant Pathologist are responsible for active prosecution of the work conducted by the State Horticultural Department and reports are made by them and incorporated in the biennial report of the University.

CONCLUSION

THUS CLOSES a summary of the Extension Service work for 1939. It is impossible to enumerate the many phases of work and activities conducted by the Service in many directions.

We have been especially interested in trying to promote better marketing facilities and trying to reduce the cost of distribution of farm products. We believe that greater emphasis should be placed upon these important problems affecting the farm people of our State. We are even hoping that several of the Federal government activities may be directed toward an approach to

the solution of these problems, which are so eminent and perhaps more so than some of the other special projects that are being prosecuted.

We are proud of the progress made in conservation of our soil and erosion control. We are likewise proud of developments in land use.

There has been notable progress made in the livestock industry, particularly in beef cattle, horses, etc. We believe that Maryland offers greater opportunities in this direction.

All in all, the work of the Service during the past year has been most commendable. The great need, as heretofore stated, is additional funds. We have been unable to restore the salaries following the cut of 1933 for many of our Agents and Specialists. We are hopeful that additional state funds will be available for this purpose in the near future.

We are grateful for the splendid cooperation of the various departments of the institution and the heads of the respective departments, who are largely responsible, with the specialists, in carrying on project work.

We are likewise appreciative of the fine cooperation extended by the Office of Extension Work in Washington, as well as various other Federal activities of the Department that have been conducted in cooperation with the Service.

Finally, the writer and the whole force are appreciative of the sympathetic assistance of President H. C. Byrd, who is willing to do his best to promote the work of the Service.

SUMMARY STATEMENT OF EXPENDITURES, BY PROJECTS, SHOWING CLASSIFICATION OF EXPENDITURES FROM ALL FUNDS USED FOR EXTENSION WORK, FISCAL YEAR ENDED JUNE 30, 1939

Projects	Total	Personal Services	Labor	Supplies and Materials	Communication Services	Travel Expenses	Transportation of Things	Printing, Binding, and Cuts of Publications	Furnishing of Heat, Light, etc.	Equipment	Miscellaneous
Administration	$ 30,549.19	$ 13,836.92		$ 2,026.80	$ 586.19	$ 785.93	$ 85.81			$ 294.56	$12,932.98
Publications	12,372.76	8,354.06		1,310.21	551.37	57.25	16.49	$1,993.20		27.20	62.98
County Agent Work	122,749.49	99,942.62		3,078.96	109.56	19,250.43	97.63		$ 1.96	178.33	90.00
Home Demonstration Work	99,363.07	75,536.39		3,531.47	140.22	18,628.64	38.64		1.96	84.91	1,400.84
Club Work	16,100.56	10,203.02		250.79	81.31	5,007.88	2.64			20.97	533.95
Agronomy	5,358.06	4,345.51		94.51		891.44	1.03			25.57	
Animal Industry	7,451.28	5,804.11	$ 7.50	78.99	6.00	1,548.01	.92			3.50	2.25
Horticulture	10,134.06	8,540.00	75.71	109.14	14.96	1,316.59	18.01			6.65	53.00
Dairying	11,004.79	8,981.00		9.68	104.49	1,906.96				2.66	
Agricultural Marketing	15,029.83	13,545.34		2.61	99.15	1,352.10				30.63	
Poultry Husbandry	13,199.45	10,420.00		463.24	119.43	1,925.43	11.20	4.00		1.35	254.80
Entomological Extension	65,707.43	16,500.00	14,237.33	17,484.14	936.49	5,114.59	744.63	8.00	7.91	9,153.43	1,520.91
Pathology	7,419.52	5,180.00		71.32	100.67	2,040.38	7.76			14.06	5.33
Canning Crops	5,248.61	4,120.00	151.25	111.97	21.06	789.13	23.18		31.42		.60
Farm Forestry	1,826.59	965.20		3.04	24.65	833.70					
Poultry Marketing	3,659.83	3,200.00		28.57	41.16	390.10					
Rural Engineering	5,919.62	4,769.18		78.38	67.99	989.21	2.36			4.00	8.50
Home Management	3,434.88	2,850.00		32.00	19.43	533.45					
Economics & Farm Mgt.	3,152.75	2,199.18				953.57					
Apiculture	2,375.89	1,400.00		11.14		964.75					
Genl. Educational Ext.	12,178.07	1,000.47		26.09		142.81					11,008.70
Ext. Work in Rural Sociology	751.04	500.02				251.02					
Tobacco	4,149.01	3,600.00	14.70	13.89	31.94	488.48					
Home Furnishing	1,645.02	1,290.00		26.91	24.60	287.21				16.30	
Nutrition	3,121.91	2,745.00		.85	19.44	346.62				10.00	
Clothing	3,320.87	2,655.00		38.98	19.59	595.40	.74			11.16	
Soil Conservation	749.69	93.27		59.86	.10	596.46					
Total	$467,973.27	$312,576.29	$14,486.49	$28,943.54	$3,119.80	$67,987.54	$1,051.04	$2,005.20	$43.25	$9,885.28	$27,874.84

SUMMARY STATEMENT OF EXPENDITURES, BY PROJECTS, SHOWING SOURCES OF FUNDS USED FOR EXTENSION WORK, FISCAL YEAR ENDED JUNE 30, 1939

Total	$467,973.27	$312,576.29	$14,486.49	$28,943.54	$3,119.80	$67,987.54	$1,051.04	$2,005.20	$43.25	$9,885.28	$27,874.84

SUMMARY STATEMENT OF EXPENDITURES, BY PROJECTS, SHOWING SOURCES OF FUNDS USED FOR EXTENSION WORK, FISCAL YEAR ENDED JUNE 30, 1939

Projects	Total	Federal Funds			Offset Funds	Funds Not Used As Offset		
		Smith-Lever	Capper-Ketcham	Additional Cooper.		College & State	County	Other
Administration	$ 30,549.19	$ 11,293.43	.....	.....	$ 5,495.72	$ 13,760.04	.....	.....
Publications	12,372.76	7,216.06	.....	.....	2,451.36	2,675.14	.....	$ 30.20
County Agent Work	122,749.49	49,055.34	$13,466.29	$6,262.60	16,390.50	1,123.18	$35,643.00	808.58
Home Demonstration Work	99,363.07	39,493.93	12,546.52	182.85	13,199.18	1,024.06	26,648.75	6,267.78
Club Work	16,100.56	8,463.88	63.80	156.30	3,013.26	787.21	.....	3,616.11
Agronomy	5,358.06	3,290.59	.....	.....	838.43	1,184.49	.....	44.55
Animal Industry	7,451.28	2,819.55	.....	.....	1,606.10	2,958.01	.....	67.62
Horticulture	10,134.06	7,444.03	.....	.....	1,859.65	824.98	.....	5.40
Dairying	11,004.79	3,630.21	.....	.....	1,054.41	4,864.72	.....	1,455.45
Agricultural Marketing	15,029.83	3,688.66	.....	.....	2,144.28	6,258.19	.....	2,938.70
Poultry Husbandry	13,199.45	5,710.15	.....	.....	3,212.85	3,993.49	.....	282.96
Entomological Extension	65,707.43	133.34	.....	.....	.....	65,574.09	.....	.....
Pathology	7,419.52	750.00	.....	.....	225.00	6,444.52	.....	.....
Canning Crops	5,248.61	4,121.03	.....	.....	530.38	597.20	.....	.....
Farm Forestry	1,826.59	18.91	.....	.....	1,620.00	187.68	.....	.....
Poultry Marketing	3,659.83	1,053.14	.....	.....	886.15	1,720.54	.....	.....
Rural Engineering	5,919.62	2,923.72	.....	.....	1,643.96	1,351.94	.....	.....
Home Management	3,434.88	2,220.45	.....	12.25	1,161.27	35.51	.....	5.40
Economics & Farm Mgt.	3,152.75	1,444.42	.....	.....	397.90	1,310.43	.....	.....
Apiculture	2,375.89	116.67	.....	.....	.....	2,259.22	.....	.....
Genl. Educational Ext.	12,178.07	.....	.....	.....	.....	12,178.07	.....	.....
Ext. Work in Rural Sociology	751.04	434.84	.....	.....	.....	316.20	.....	.....
Tobacco	4,149.01	2,441.48	.....	.....	1,603.43	104.10	.....	.....
Home Furnishing	1,645.02	671.34	.....	31.85	851.36	63.71	.....	26.76
Nutrition	3,121.91	2,084.50	.....	.....	1,014.24	23.17	.....	.....
Clothing	3,320.87	1,942.21	.....	54.15	1,127.25	190.21	.....	7.05
Soil Conservation	749.69	100.87	.....	.....	194.29	454.53	.....	.....
Total	$467,973.27	$162,562.75	$26,076.61	$6,700.00	$62,520.97	$132,264.63	$62,291.75	$15,556.56